

10-090

**ILLINOIS HEALTH FACILITIES AND SERVICES REVIEW BOARD**  
**APPLICATION FOR PERMIT**  
**ORIGINAL**

**SECTION I. IDENTIFICATION, GENERAL INFORMATION, AND CERTIFICATION**

This Section must be completed for all projects. **RECEIVED**  
 DEC 29 2010

**Facility/Project Identification**

Facility Name:	Centegra Hospital - Huntley	HEALTH FACILITIES & SERVICES REVIEW BOARD	
Street Address:	East Side of Haligus Rd. between Algonquin Rd. and Board Rd. - see legal description		
City and Zip Code:	Huntley 60142		
County:	McHenry	Health Service Area	8
		Health Planning Area:	A-10

**Applicant /Co-Applicant Identification**

[Provide for each co-applicant [refer to Part 1130.220].

Exact Legal Name:	Centegra Hospital - Huntley
Address:	385 Millennium Drive Crystal Lake, Illinois 60012
Name of Registered Agent:	Mr. Michael S. Eesley, FACHE
Name of Chief Executive Officer:	Mr. Michael S. Eesley, FACHE
CEO Address:	385 Millennium Drive Crystal Lake, Illinois 60012
Telephone Number:	815-788-5825

**Type of Ownership of Applicant/Co-Applicant**

- |                                                            |                                              |                                |
|------------------------------------------------------------|----------------------------------------------|--------------------------------|
| <input checked="" type="checkbox"/> Non-profit Corporation | <input type="checkbox"/> Partnership         |                                |
| <input type="checkbox"/> For-profit Corporation            | <input type="checkbox"/> Governmental        |                                |
| <input type="checkbox"/> Limited Liability Company         | <input type="checkbox"/> Sole Proprietorship | <input type="checkbox"/> Other |

- o Corporations and limited liability companies must provide an **Illinois certificate of good standing**.
- o Partnerships must provide the name of the state in which organized and the name and address of each partner specifying whether each is a general or limited partner.

**APPEND DOCUMENTATION AS ATTACHMENT-1 IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.**

**Primary Contact**

[Person to receive all correspondence or inquiries during the review period]

Name:	Ms. Hadley Streng
Title:	Director of Planning and Business Development
Company Name:	Centegra Health System
Address:	385 Millennium Drive Crystal Lake, Illinois 60012
Telephone Number:	815-788-5858
E-mail Address:	<a href="mailto:hstreng@centegra.com">hstreng@centegra.com</a>
Fax Number:	815-788-5263

**Additional Contact**

[Person who is also authorized to discuss the application for permit]

Name:	Ms. Andrea R. Rozran
Title:	Principal
Company Name:	Diversified Health Resources, Inc.
Address:	65 E. Scott Street #9A Chicago, Illinois 60610-5274
Telephone Number:	312-266-0466
E-mail Address:	<a href="mailto:arozran@diversifiedhealth.net">arozran@diversifiedhealth.net</a>
Fax Number:	312-266-0715

**001**

**Additional Applicant /Co-Applicant Identification**  
 [Provide for each co-applicant [refer to Part 1130.220].

Exact Legal Name:	Centegra Health System
Address:	385 Millennium Drive Crystal Lake, Illinois 60012
Name of Registered Agent:	Mr. Michael S. Eesley, FACHE
Name of Chief Executive Officer:	Mr. Michael S. Eesley, FACHE
CEO Address:	385 Millennium Drive Crystal Lake, Illinois 60012
Telephone Number:	815-788-5825

**Type of Ownership of Applicant/Co-Applicant**

- |                                                            |                                                                             |
|------------------------------------------------------------|-----------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Non-profit Corporation | <input type="checkbox"/> Partnership                                        |
| <input type="checkbox"/> For-profit Corporation            | <input type="checkbox"/> Governmental                                       |
| <input type="checkbox"/> Limited Liability Company         | <input type="checkbox"/> Sole Proprietorship <input type="checkbox"/> Other |

Corporations and limited liability companies must provide an Illinois certificate of good standing.  
 Partnerships must provide the name of the state in which organized and the name and address of each partner specifying whether each is a general or limited partner.

**APPEND DOCUMENTATION AS ATTACHMENT-1 IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.**

**Additional Contact**

[Person who is also authorized to discuss the application for permit]

Name:	Mr. Daniel J. Lawler
Title:	Partner
Company Name:	K & L Gates, LLP
Address:	70 W. Madison Street Chicago, Illinois 60602-4207
Telephone Number:	312-807-4289
E-mail Address:	<a href="mailto:daniel.lawler@klgates.com">daniel.lawler@klgates.com</a>
Fax Number:	312-827-8114

**Post Permit Contact**

[Person to receive all correspondence subsequent to permit issuance-THIS PERSON MUST BE EMPLOYED BY THE LICENSED HEALTH CARE FACILITY AS DEFINED AT 20 ILCS 3960

Name:	Ms. Hadley Streng
Title:	Director of Planning and Business Development
Company Name:	Centegra Health System
Address:	385 Millennium Drive Crystal Lake, Illinois 60012
Telephone Number:	815-788-5858
E-mail Address:	hstreng@centegra.com
Fax Number:	815-788-5263

**Site Ownership**

[Provide this information for each applicable site]

Exact Legal Name of Site Owner:	NIMED Corp.
Address of Site Owner:	385 Millennium Drive Crystal Lake, Illinois 60012
Street Address or Legal Description of Site:	East Side of Haligus Rd. between Algonquin Rd. and Reed Rd. – see Legal Description of Site on the next page
Proof of ownership or control of the site is to be provided as Attachment 2. Examples of proof of ownership are property tax statement, tax assessor's documentation, deed, notarized statement of the corporation attesting to ownership, an option to lease, a letter of intent to lease or a lease.	
APPEND DOCUMENTATION AS ATTACHMENT-2, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.	

**Operating Identity/Licensee**

[Provide this information for each applicable facility, and insert after this page.]

Exact Legal Name:	Centegra Hospital - Huntley
Address:	c/o Centegra Health System 385 Millennium Drive Crystal Lake, Illinois 60012
<input checked="" type="checkbox"/> Non-profit Corporation	<input type="checkbox"/> Partnership
<input type="checkbox"/> For-profit Corporation	<input type="checkbox"/> Governmental
<input type="checkbox"/> Limited Liability Company	<input type="checkbox"/> Sole Proprietorship <input type="checkbox"/> Other
<ul style="list-style-type: none"> <li>o Corporations and limited liability companies must provide an Illinois Certificate of Good Standing.</li> <li>o Partnerships must provide the name of the state in which organized and the name and address of each partner specifying whether each is a general or limited partner.</li> <li>o <b>Persons with 5 percent or greater interest in the licensee must be identified with the % of ownership.</b></li> </ul>	
APPEND DOCUMENTATION AS ATTACHMENT-3, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.	

**Organizational Relationships**

Provide (for each co-applicant) an organizational chart containing the name and relationship of any person or entity who is related (as defined in Part 1130.140). If the related person or entity is participating in the development or funding of the project, describe the interest and the amount and type of any financial contribution.

APPEND DOCUMENTATION AS ATTACHMENT-4, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Legal Description

THE NORTHEAST QUARTER OF SECTION 27, TOWNSHIP 43 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, EXCEPT THE WEST 40.00 FEET THEREOF, ALSO EXCEPT THAT PART OF SAID NORTHEAST QUARTER DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID NORTHEAST QUARTER, THENCE SOUTH 89 DEGREES 28 MINUTES 50 SECONDS WEST ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER FOR 1400.00 FEET; THENCE NORTH 00 DEGREES 01 MINUTES 49 SECONDS EAST PARALLEL WITH THE EAST LINE OF THE SAID NORTHEAST QUARTER FOR 1395.03 FEET; THENCE NORTH 89 DEGREES 31 MINUTES 41 SECONDS EAST ALONG A LINE PARALLEL WITH THE NORTH LINE OF ALGONQUIN ROAD FOR 1399.99 FEET TO THE EAST LINE OF SAID NORTHEAST QUARTER; THENCE SOUTH 00 DEGREES 01 MINUTE 49 SECONDS WEST 1398.87 FEET TO THE PLACE OF BEGINNING, ALL IN MCHENRY COUNTY, ILLINOIS.

**Flood Plain Requirements**

[Refer to application instructions.]

Provide documentation that the project complies with the requirements of Illinois Executive Order #2005-5 pertaining to construction activities in special flood hazard areas. As part of the flood plain requirements please provide a map of the proposed project location showing any identified floodplain areas. Floodplain maps can be printed at [www.FEMA.gov](http://www.FEMA.gov) or [www.illinoisfloodmaps.org](http://www.illinoisfloodmaps.org). **This map must be in a readable format.** In addition please provide a statement attesting that the project complies with the requirements of Illinois Executive Order #2005-5 (<http://www.hfsrb.illinois.gov>).

**APPEND DOCUMENTATION AS ATTACHMENT-5, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.**

**Historic Resources Preservation Act Requirements**

[Refer to application instructions.]

Provide documentation regarding compliance with the requirements of the Historic Resources Preservation Act.

**APPEND DOCUMENTATION AS ATTACHMENT-6, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.**

**DESCRIPTION OF PROJECT**

**1. Project Classification**

[Check those applicable - refer to Part 1110.40 and Part 1120.20(b)]

<p>Part 1110 Classification:</p> <p><input checked="" type="checkbox"/> Substantive</p> <p><input type="checkbox"/> Non-substantive</p>	<p>Part 1120 Applicability or Classification: [Check one only.]</p> <p><input type="checkbox"/> Part 1120 Not Applicable</p> <p><input type="checkbox"/> Category A Project</p> <p><input checked="" type="checkbox"/> Category B Project</p> <p><input type="checkbox"/> DHS or DVA Project</p>
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## 2. Narrative Description

Provide in the space below, a brief narrative description of the project. Explain **WHAT** is to be done in **State Board defined terms**, **NOT WHY** it is being done. If the project site does **NOT** have a street address, include a legal description of the site. Include the rationale regarding the project's classification as substantive or non-substantive.

This project proposes to establish a new hospital in southern McHenry County (Planning Area A-10) to meet the existing bed need, as determined by the Illinois Department of Public Health and Illinois Health Facilities and Services Review Board in their "Revised Bed Need Determinations" to the "Inventory of Health Care Facilities and Services and Need Determinations," as well as the anticipated increase in Medical/Surgical bed need that will occur between 2015 (the year for which the "Revised Bed Need Determinations" is made) and the hospital's second full year of operation (July, 2017 – June, 2018).

The new hospital, which will be named Centegra Hospital – Huntley, will be located in Huntley.

Centegra Hospital - Huntley is proposed to have a total of 128 authorized beds in the Medical/Surgical, Intensive Care, and Obstetric Categories of Service:

- 100 Medical/Surgical beds;
- 8 Intensive Care beds;
- 20 Obstetrical beds.

Centegra Hospital – Huntley is proposed to have the following Clinical Service Areas that are not Categories of Service.

- Surgery
- Post-Anesthesia Recovery (PACU, Recovery)
- Surgical Prep (for both A.M. Admits and Same-Day Surgery Patients) and Stage II Recovery
- Endoscopy
- Emergency Department
- Diagnostic Imaging (Radiology, Radiology/Fluoroscopy, Ultrasound, CT Scanning, MRI Scanning, Nuclear Medicine)
- Labor/Delivery/Recovery Suite
- C-Section Suite
- Newborn Nurseries (Levels I and II)
- Inpatient Physical Therapy/Occupational Therapy
- Non-Invasive Diagnostic Cardiology
- Neurodiagnostics
- Pulmonary Function Testing
- Respiratory Therapy
- Acute Inpatient Dialysis
- Pre-Admission Testing
- Clinical Laboratory, including Morgue
- Pharmacy
- Central Sterile Processing/Distribution
- Dietary

The new hospital will also include the following Non-Clinical Service Areas:

- Registration
- Administration
- Social Services (Case Management)
- Quality Management/Infection Control
- Facilities Management
- Central On-Call Rooms
- Conference Rooms/Education
- Family Support Services
- Housekeeping
- Information Systems
- Gift Shop
- Mail Room
- Materials Management and Loading Dock
- Mechanical Space and Equipment
- Medical Records
- Servery and Dining Room
- Biomedical Engineering
- Pastoral Care
- Physicians' Services

- Security
- Staff Support Services
- Volunteers
- Lobbies/Public Space
- Interdepartmental Circulation
- Stairs
- Elevator Shafts and Elevators

Since the site for Centegra Hospital – Huntley does not yet have an address, a site description is provided following this Narrative Description.

This project is "substantive" in accordance with 77 Ill. Adm. Code 1110.40.b) because it does not meet the criteria for classification as a "non-substantive" project.

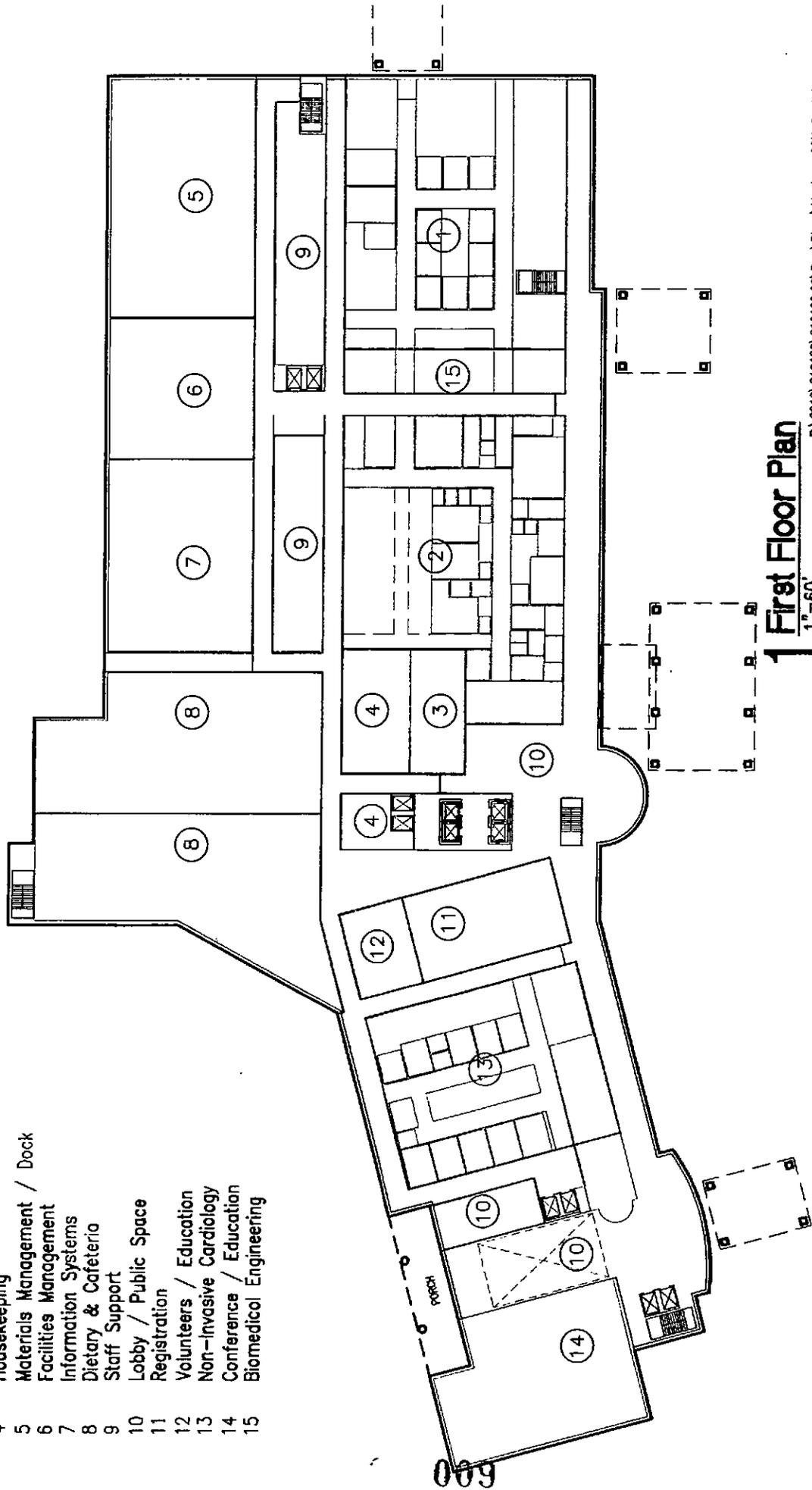
Preliminary schematic drawings of Centegra Hospital – Huntley, showing an elevation and each floor of the hospital building, are found after the site description for the project.

Legal Description

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- 1 Emergency
- 2 Diagnostic Imaging
- 3 Gift Shop
- 4 Housekeeping
- 5 Materials Management / Dock
- 6 Facilities Management
- 7 Information Systems
- 8 Dietary & Cafeteria
- 9 Staff Support
- 10 Lobby / Public Space
- 11 Registration
- 12 Volunteers / Education
- 13 Non-Invasive Cardiology
- 14 Conference / Education
- 15 Biomedical Engineering

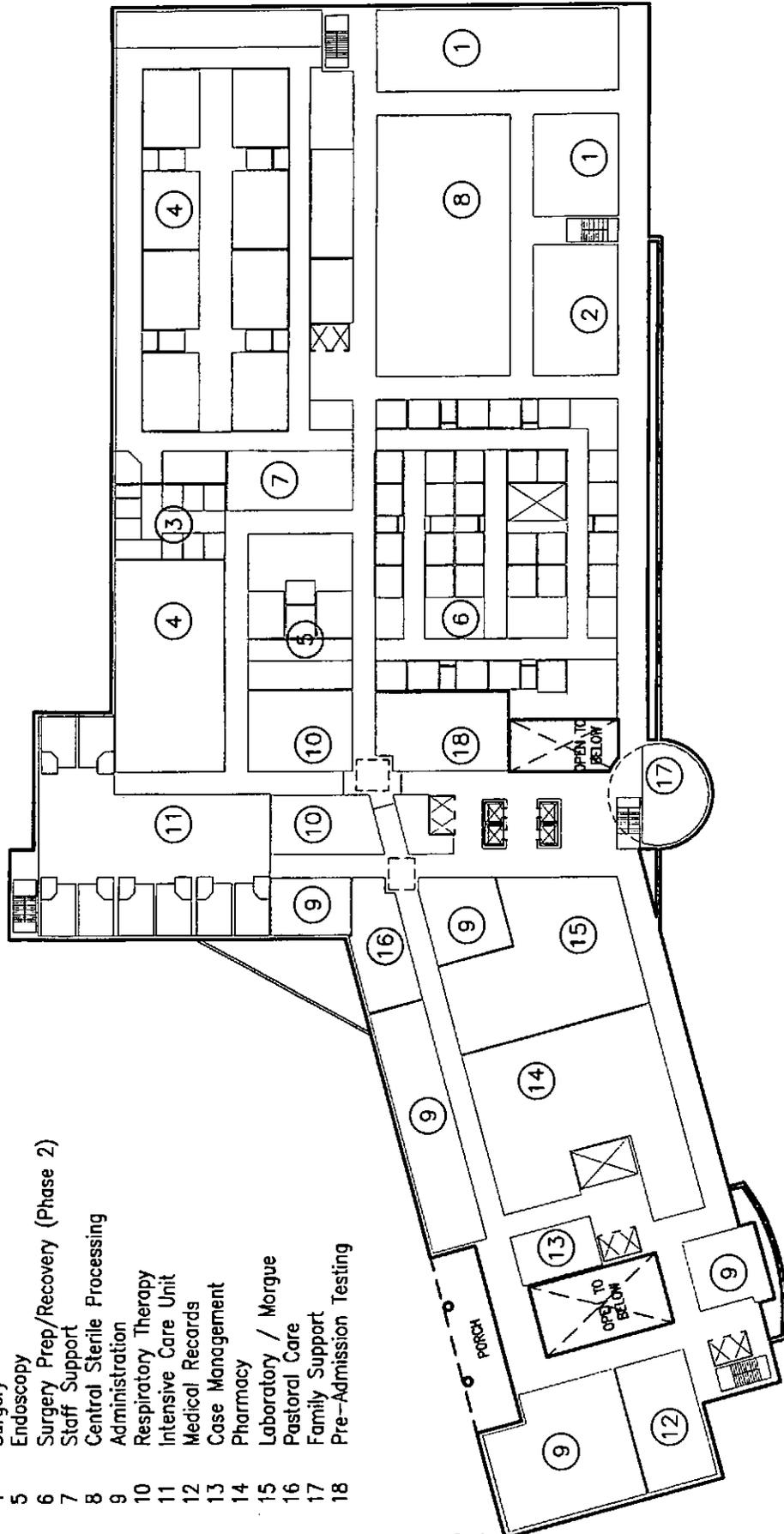


# 1 First Floor Plan

1" = 60'

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- 1 Physician Services
- 2 Central On-Call
- 3 PACU
- 4 Surgery
- 5 Endoscopy
- 6 Surgery Prep/Recovery (Phase 2)
- 7 Staff Support
- 8 Central Sterile Processing
- 9 Administration
- 10 Respiratory Therapy
- 11 Intensive Care Unit
- 12 Medical Records
- 13 Case Management
- 14 Pharmacy
- 15 Laboratory / Morgue
- 16 Pastoral Care
- 17 Family Support
- 18 Pre-Admission Testing



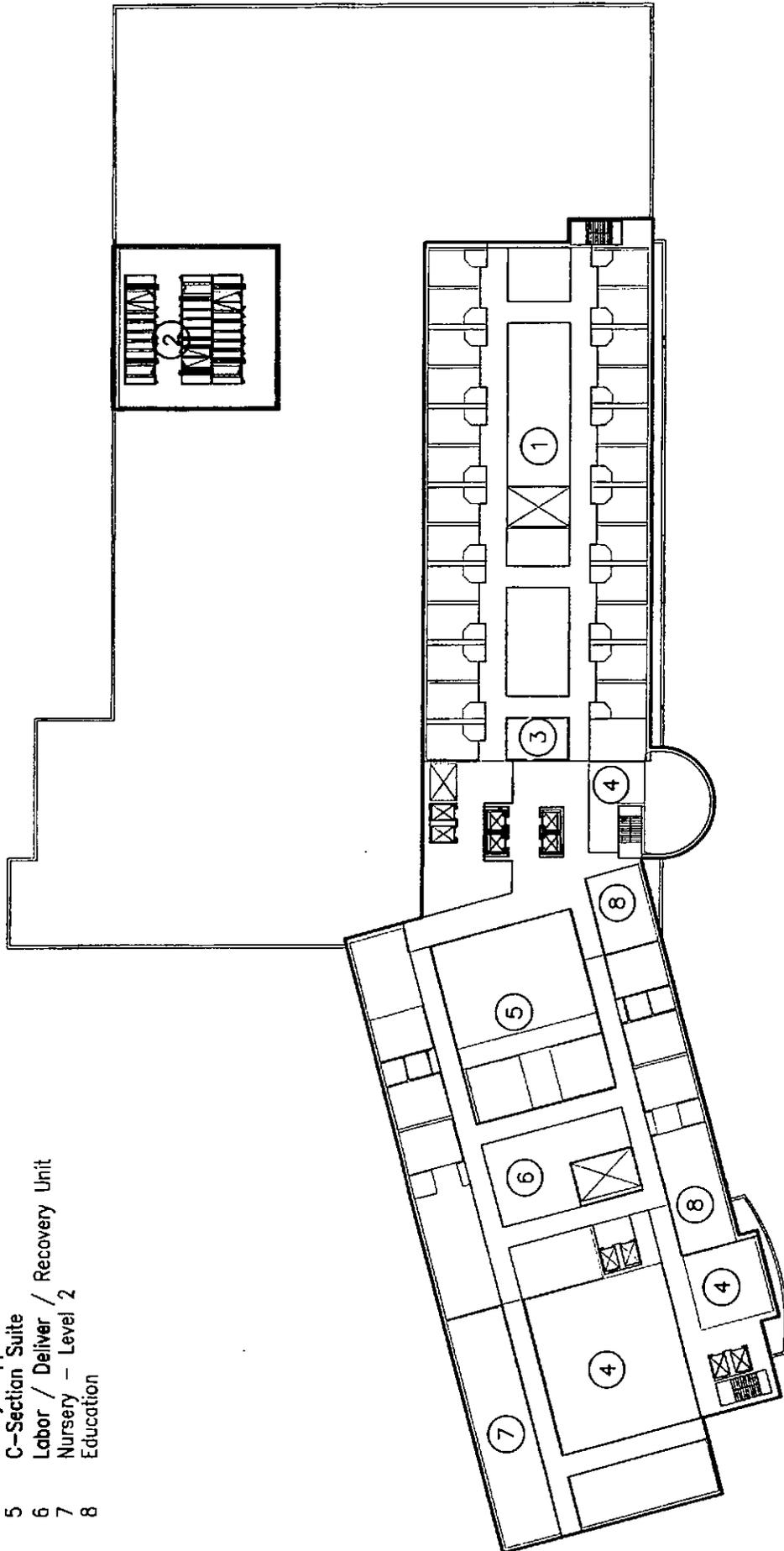
010

## 2 Second Floor Plan

1"=60'

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- 1 Medical / Surgical Nursing Units
- 2 Mechanical
- 3 Administration
- 4 Family Support
- 5 C-Section Suite
- 6 Labor / Deliver / Recovery Unit
- 7 Nursery - Level 2
- 8 Education



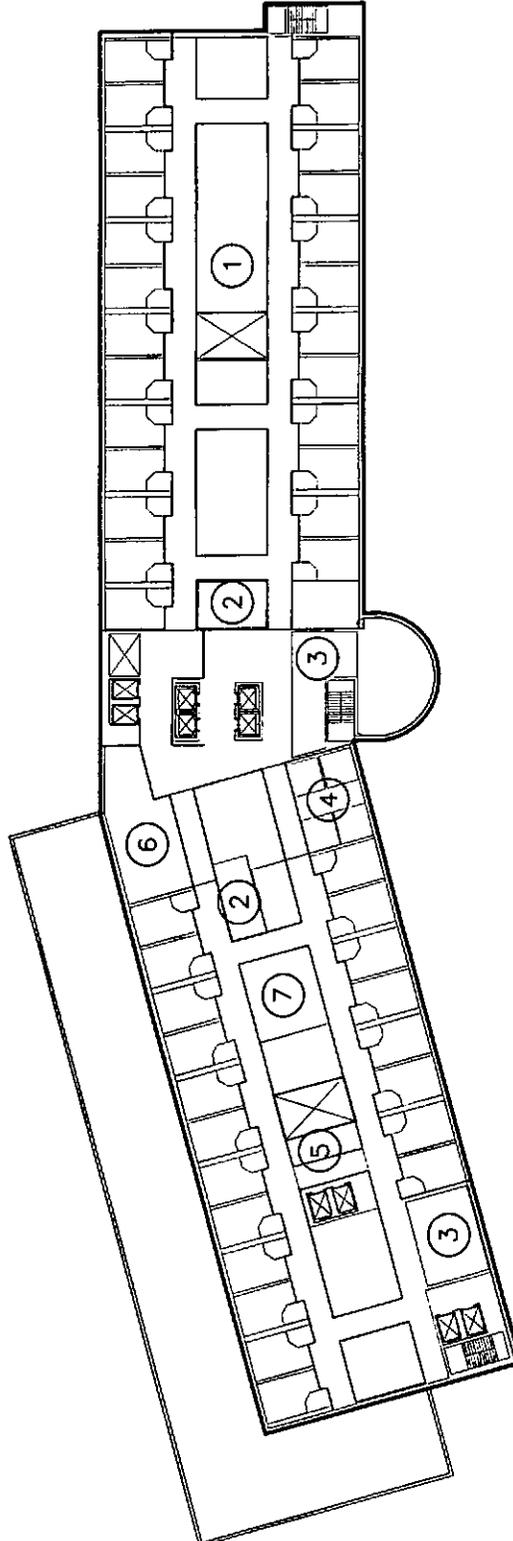
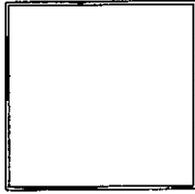
011

### 3 Third Floor Plan

1" = 60'

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- 1 Medical / Surgical Nursing Units
- 2 Administration
- 3 Family Support
- 4 Inpatient Dialysis
- 5 Obstetrics
- 6 PT/OT
- 7 Level 1 Nursery

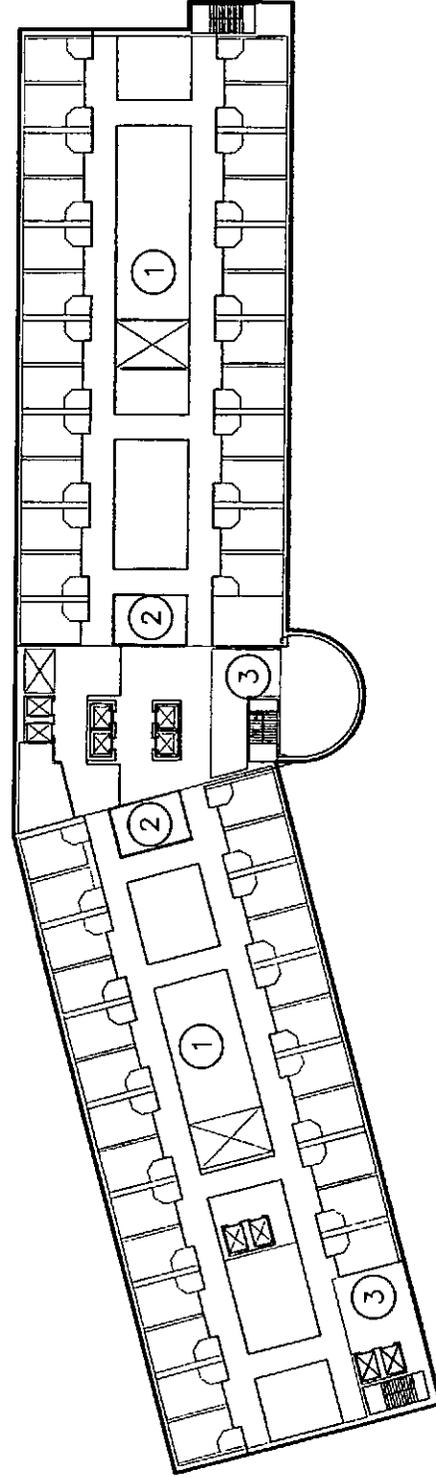


# 4 Fourth Floor Plan

1" = 60'

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- 1 Medical / Surgical Nursing Units
- 2 Administration
- 3 Family Support



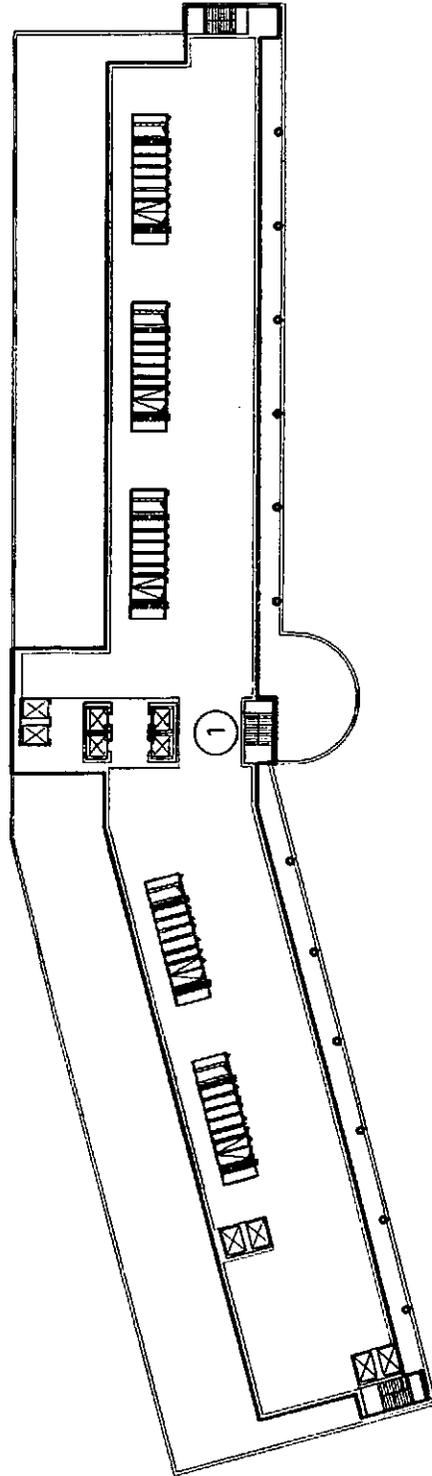
013

# 5 Fifth Floor Plan

1" = 60'

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1 Mechanical



# 6 Sixth Floor Plan

1" = 60'

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**Project Costs and Sources of Funds**

Complete the following table listing all costs (refer to Part 1120.110) associated with the project. When a project or any component of a project is to be accomplished by lease, donation, gift, or other means, the fair market or dollar value (refer to Part 1130.140) of the component must be included in the estimated project cost. If the project contains non-reviewable components that are not related to the provision of health care, complete the second column of the table below. Note, the use and sources of funds must equal.

Project Costs and Sources of Funds			
USE OF FUNDS	CLINICAL	NONCLINICAL	TOTAL
Preplanning Costs	\$1,729,015	\$1,205,985	\$2,935,000
Site Survey and Soil Investigation	\$41,849	\$43,151	\$85,000
Site Preparation	\$1,028,988	\$1,061,012	\$2,090,000
Off Site Work	\$5,356,644	\$5,523,356	\$10,880,000
New Construction Contracts	\$68,851,517	\$57,881,296	\$126,732,813
Modernization Contracts	\$0	\$0	\$0
Contingencies	\$6,540,894	\$5,498,723	\$12,039,617
Architectural/Engineering Fees	\$4,045,356	\$3,400,804	\$7,446,160
Consulting and Other Fees	\$3,972,992	\$3,751,737	\$7,724,729
Movable or Other Equipment (not in construction contracts)	\$24,170,213	\$6,064,753	\$30,234,966
Bond Issuance Expense (project related)	\$1,477,016	\$1,522,984	\$3,000,000
Net Interest Expense During Construction (project related)	\$13,514,695	\$13,935,305	\$27,450,000
Fair Market Value of Leased Space or Equipment	\$2,150,000	\$0	\$2,150,000
Other Costs To Be Capitalized	\$193,030	\$199,037	\$392,067
Acquisition of Building or Other Property (excluding land)	\$0	\$0	\$0
<b>TOTAL USES OF FUNDS</b>	<b>\$133,072,209</b>	<b>\$100,088,143</b>	<b>\$233,160,352</b>
SOURCE OF FUNDS	CLINICAL	NONCLINICAL	TOTAL
Cash and Securities	\$40,824,172	\$7,186,180	\$48,010,352
Pledges	\$0	\$0	\$0
Gifts and Bequests	\$0	\$0	\$0
Bond Issues (project related)	\$90,098,037	\$92,901,963	\$183,000,000
Mortgages	\$0	\$0	\$0
Leases (fair market value)	\$2,150,000	\$0	\$2,150,000
Governmental Appropriations	\$0	\$0	\$0
Grants	\$0	\$0	\$0
Other Funds and Sources	\$0	\$0	\$0
<b>TOTAL SOURCES OF FUNDS</b>	<b>\$133,072,209</b>	<b>\$100,088,143</b>	<b>\$233,160,352</b>
<b>NOTE: ITEMIZATION OF EACH LINE ITEM MUST BE PROVIDED AT ATTACHMENT 7, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.</b>			

**Related Project Costs**

Provide the following information, as applicable, with respect to any land related to the project that will be or has been acquired during the last two calendar years:

Land acquisition is related to project  Yes  No  
 Purchase Price: \$ \_\_\_\_\_  
 Fair Market Value: \$ \_\_\_\_\_

The project involves the establishment of a new facility or a new category of service  
 Yes  No

If yes, provide the dollar amount of all **non-capitalized** operating start-up costs (including operating deficits) through the first full fiscal year when the project achieves or exceeds the target utilization specified in Part 1100.

Estimated start-up costs and operating deficit cost is \$ 13,224,000.

**Project Status and Completion Schedules**

Indicate the stage of the project's architectural drawings:

None or not applicable  Preliminary  
 Schematics  Final Working

Anticipated project completion date (refer to Part 1130.140): September 30, 2016

Indicate the following with respect to project expenditures or to obligation (refer to Part 1130.140):

- Purchase orders, leases or contracts pertaining to the project have been executed.  
 Project obligation is contingent upon permit issuance. Provide a copy of the contingent "certification of obligation" document, highlighting any language related to CON Contingencies  
 Project obligation will occur after permit issuance.

APPEND DOCUMENTATION AS ATTACHMENT-8, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

**State Agency Submittals**

Are the following submittals up to date as applicable:

- Cancer Registry  
 APORS  
 All formal document requests such as IDPH Questionnaires and Annual Bed Reports been submitted  
 All reports regarding outstanding permits (see letter on next 2 pages)  
**Failure to be up to date with these requirements will result in the application for permit being deemed incomplete.**

**By Email Transmission and Overnight Delivery**

December 20, 2010

Mr. Dale Galassie, Chair  
Illinois Health Facilities and Services Review Board  
525 West Jefferson Street, 2nd Floor  
Springfield, IL 62761

RE: Abandonment of Project No. 08-002, Centegra Memorial Medical Center d/b/a Centegra Hospital – Woodstock

Dear Chairman Galassie:

This letter is to provide notice to the Illinois Health Facilities and Services Review Board (“Review Board”) that the applicant Centegra Health System (“Centegra”) is, for the reasons stated below, abandoning the permit issued in Project No. 08-002, Centegra Memorial Medical Center d/b/a Centegra Hospital – Woodstock. The project was a major modernization that included an increase of 14 Medical/Surgical beds and 6 Obstetric beds. With the abandonment of the project, these beds may be removed from the Inventory of existing beds for Planning Area A-10. A copy of the Permit Letter for Project No. 08-002 is attached.

Centegra decided to abandon this project after a reassessment of its strategic master facility plan. Since the issuance of the permit, we have kept the Review Board apprised of the status of our reassessment. In our initial Annual Progress Report dated July 31, 2009, we advised that we were considering the need to request an extension of the time to obligate the project. In November 2009, following the tumultuous year caused by the global financial market crises and economic downturn, we submitted a Request for Extension of the Obligation Period for Project No. 08-002. That request, dated November 11, 2009, noted that the hospital community as a whole was finding construction loans difficult to obtain even for A-rated organizations. In addition, as with most other hospital providers at the time, Centegra re-evaluated its major capital expenditure program during that unpredictable and volatile economic period. We advised the Review Board that we had begun to reassess our strategic master facility plan and felt this was necessary in light of changing market conditions, the uncertain financial situation, and in anticipation of health care reform. We further advised the Review Board that, in the event there was an alteration in the strategic master facility plan, Centegra would petition the Review Board for an alteration to Project No. 08-002.

In our most recent Annual Progress Report for this project, which was submitted on August 4, 2010, we advised the Review Board that we were continuing to evaluate our options presented in connection with the reassessment of our strategic master facility plan and would be making the decision whether to progress with the current plan, to petition the Review Board for an alteration to Project No. 08-002, or take other appropriate action.

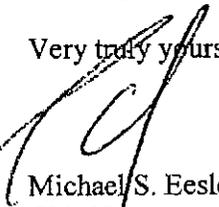
With the revitalization of the financial markets and increasingly favorable expectations for the economy, we also observed the growing need for inpatient services in our area, especially in the southern portion of McHenry County which has no existing inpatient hospital facilities. As a result of the reassessment of the strategic master facility plan, Centegra determined that a more judicious use of resources to meet the long term needs of the Planning Area can be best achieved by the establishment of a new hospital in the southern portion of McHenry County. Consequently, Centegra has decided to abandon Project No. 08-002 and to file an application for permit with the Review Board for the establishment of a new hospital in Huntley.

As stated in our 2010 Annual Progress Report, the total amount of project costs expended on Project 08-002 is \$1,649,776 which consisted primarily of preplanning costs, architectural/engineering fees and other consulting fees. This amount is substantially below the capital expenditure minimum threshold and would not have independently required a permit. A significant amount of the capital costs and work expended on Project No. 08-002 were useful and translated to the proposed hospital project in Huntley.

We had a technical assistance meeting with Mr. Michael Constantino on December 14, 2010 to request the procedure to appropriately abandon Project 08-002 and he advised the submission of a letter. Please accept this letter as both notice of the abandonment of Project No. 08-002 and as the applicant's documentation of the technical assistance meeting with Mr. Constantino. Present at the meeting on behalf of Centegra were myself, Mr. Aaron Shepley, Senior Vice President, Ms. Susan Milford, Senior Vice President of Marketing, Strategic Planning & Wellness, Ms. Hadley Streng, Director of Planning and Business Development, and Ms. Andrea Rozran, Diversified Health Resources, our CON consultant. We thank Mr. Constantino for his technical assistance on this project.

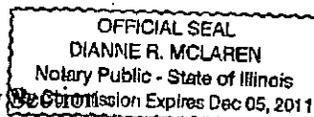
To conclude, the applicant Centegra Health System is abandoning Project No. 08-002, Centegra Memorial Medical Center d/b/a Centegra Hospital – Woodstock. The 14 medical/surgical beds and 6 Obstetric beds associated with the project may be removed from the Inventory for Planning Area A-10. Thank you for your attention to this matter.

Very truly yours,

  
Michael S. Easley  
Chief Executive Officer  
Centegra Health System

SUBSCRIBED and SWORN to before me  
this 20<sup>th</sup> day of December, 2010.

  
Dianne R. McLaren  
Notary Public



cc: Mr. Michael Constantino, Supervisor, Project Review  
Ms. Andrea Rozran, Diversified Health Resources



STATE OF ILLINOIS

# HEALTH FACILITIES PLANNING BOARD

525 WEST JEFFERSON STREET • SPRINGFIELD, ILLINOIS 62761 • (217)782-3516

July 3, 2008

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Rowena Wermes, Director of Planning  
Centegra Health System  
385 Millennium Drive  
Crystal Lake, Illinois 60012

RE: **PERMIT**: Illinois Health Facilities Planning Act 20 ILCS 3960

Dear Ms. Wermes:

On July 1, 2008, the Illinois Health Facilities Planning Board approved the application for permit for the referenced project based upon the project's substantial conformance with the applicable standards and criteria of Part 1110 and 1120. In arriving at a decision, the State Board considered the findings contained in the State Agency Report, the application material, and any testimony made before the State Board.

- **PROJECT**: #08-002 - Memorial Medical Center - Woodstock New  
The permit holders are approved for a 2-story addition in 77,478/GSF of new space and to modernize 19,998/GSF of space located at Memorial Medical Center-Woodstock, 3701 Doty Road, Woodstock, Illinois 60098. In addition the permit holders are approved to increase the number of medical surgical (M/S) beds by 14 M/S beds for a total of 74 M/S beds, and increase the number of obstetric beds by 6 obstetric beds for a total of 20 obstetric beds.
- **PERMIT HOLDER**: Centegra Health System, 385 Millennium Drive, Crystal Lake, Illinois 60012, Memorial Medical Center-Woodstock, 3701 Doty Road, Woodstock, Illinois 60098
- **PERMIT AMOUNT**: \$52,201,702
- **PROJECT OBLIGATED BY**: January 1, 2010
- **PROJECT COMPLETION DATE**: May 31, 2012

This permit is valid only for the defined construction or modification, site, amount and the named permit holder and is not transferable or assignable.

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OFFICE OF THE EXECUTIVE SECRETARY

In accordance with the Planning Act, the permit is valid until such time as the project has been completed, provided that all post permit requirements have been fulfilled, pursuant to the requirements of 77 Ill. Adm. Code 1130. The permit holder is responsible for complying with the following requirements in order to maintain a valid permit. Failure to comply with the requirements may result in expiration of the permit or in State Board action to revoke the permit.

1. OBLIGATION-PART 1130.720

The project must be obligated prior to the Project Obligation Date, unless the permit holder obtains an "Extension of the Obligation Period" as provided in 77 Ill. Adm. Code 1130.730.

2. ANNUAL PROGRESS REPORT-PART 1130.760

An annual progress report must be submitted to IDPH every 12-month from the permit issuance date until such time as the project is completed.

3. PROJECT COMPLETION REQUIREMENTS-PART 1130.770

The permit holder must submit a written notice of project completion as defined in Section 1130.140. Each permit holder shall notify HFPB within 30 days following the project completion date and provide supporting documentation within 90 days following the completion date and must contain the information required by Section 1130.770.

This permit does not exempt the project or permit holder from licensing and certification requirements, including approval of applicable architectural plans and specifications prior to construction. Should you have any questions regarding the permit requirements, please contact Donald Jones.

Sincerely,



Jeffrey S. Mark  
Executive Secretary

### Cost Space Requirements

Provide in the following format, the department/area **DGSF** or the building/area **BGSF** and cost. The type of gross square footage either **DGSF** or **BGSF** must be identified. The sum of the department costs **MUST** equal the total estimated project costs. Indicate if any space is being reallocated for a different purpose. Include outside wall measurements plus the department's or area's portion of the surrounding circulation space. **Explain the use of any vacated space.**

Dept. / Area	Cost	Gross Square Feet		Amount of Proposed Total Gross Square Feet That Is:			
		Existing	Proposed	New Const.	Modernized	As Is	Vacated Space
<b>REVIEWABLE</b>							
Medical Surgical							
Intensive Care							
Diagnostic Radiology							
MRI							
Total Clinical							
<b>NON REVIEWABLE</b>							
Administrative							
Parking							
Gift Shop							
Total Non-clinical							
<b>TOTAL</b>							

**APPEND DOCUMENTATION AS ATTACHMENT-9 IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.**

**Facility Bed Capacity and Utilization**

**PLEASE NOTE THAT THERE IS NO HISTORIC UTILIZATION BECAUSE THIS APPLICATION IS TO ESTABLISH CENTEGRA HOSPITAL - HUNTLEY**

Complete the following chart, as applicable. Complete a separate chart for each facility that is a part of the project and insert following this page. Provide the existing bed capacity and utilization data for the latest **Calendar Year for which the data are available**. Include **observation days in the patient day totals for each bed service**. Any bed capacity discrepancy from the Inventory will result in the application being deemed **incomplete**.

<b>FACILITY NAME: Centegra Hospital - Huntley</b>			<b>CITY: Huntley</b>		
<b>REPORTING PERIOD DATES: From: January 1, 2009 to: December 31, 2009</b>					
<b>Category of Service</b>	<b>Authorized Beds</b>	<b>Admissions</b>	<b>Patient Days Incl. Observ.</b>	<b>Bed Changes</b>	<b>Proposed Beds</b>
Medical/Surgical	0	0	0	+100	100
Obstetrics	0	0	0	+20	20
Pediatrics	0	0	0	0	0
Intensive Care	0	0	0	+8	8
Comprehensive Physical Rehabilitation	0	0	0	0	0
Acute/Chronic Mental Illness	0	0	0	0	0
Neonatal Intensive Care	0	0	0	0	0
General Long Term Care	0	0	0	0	0
Specialized Long Term Care	0	0	0	0	0
Long Term Acute Care	0	0	0	0	0
Other ((identify))					
<b>TOTALS:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>+128</b>	<b>128</b>

**CERTIFICATION**

The application must be signed by the authorized representative(s) of the applicant entity. The authorized representative(s) are:

- o in the case of a corporation, any two of its officers or members of its Board of Directors;
- o in the case of a limited liability company, any two of its managers or members (or the sole manger or member when two or more managers or members do not exist);
- o in the case of a partnership, two of its general partners (or the sole general partner, when two or more general partners do not exist);
- o in the case of estates and trusts, two of its beneficiaries (or the sole beneficiary when two or more beneficiaries do not exist); and
- o in the case of a sole proprietor, the individual that is the proprietor.

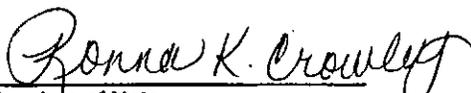
This Application for Permit is filed on the behalf of Cantegra Hospital - Huntley in accordance with the requirements and procedures of the Illinois Health Facilities Planning Act. The undersigned certifies that he or she has the authority to execute and file this application for permit on behalf of the applicant entity. The undersigned further certifies that the data and information provided herein, and appended hereto, are complete and correct to the best of his or her knowledge and belief. The undersigned also certifies that the permit application fee required for this application is sent herewith or will be paid upon request.

  
 \_\_\_\_\_  
 SIGNATURE  
Michael S. Eesley  
 \_\_\_\_\_  
 PRINTED NAME  
CEO  
 \_\_\_\_\_  
 PRINTED TITLE

  
 \_\_\_\_\_  
 SIGNATURE  
Jason Sciarro  
 \_\_\_\_\_  
 PRINTED NAME  
President and COO  
 \_\_\_\_\_  
 PRINTED TITLE

Notarization:  
Subscribed and sworn to before me  
this 21 day of DECEMBER, 2010

Notarization:  
Subscribed and sworn to before me  
this 21 day of DECEMBER, 2010

  
 \_\_\_\_\_  
 Signature of Notary

  
 \_\_\_\_\_  
 Signature of Notary

Seal

OFFICIAL SEAL  
 RONNA K CROWLEY  
 NOTARY PUBLIC - STATE OF ILLINOIS  
 MY COMMISSION EXPIRES 09/07/11

\*Insert EXACT legal name of the applicant

Seal

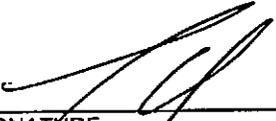
OFFICIAL SEAL  
 RONNA K CROWLEY  
 NOTARY PUBLIC - STATE OF ILLINOIS  
 MY COMMISSION EXPIRES 09/07/11

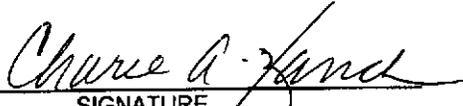
**CERTIFICATION**

The application must be signed by the authorized representative(s) of the applicant entity. The authorized representative(s) are:

- o in the case of a corporation, any two of its officers or members of its Board of Directors;
- o in the case of a limited liability company, any two of its managers or members (or the sole manger or member when two or more managers or members do not exist);
- o in the case of a partnership, two of its general partners (or the sole general partner, when two or more general partners do not exist);
- o in the case of estates and trusts, two of its beneficiaries (or the sole beneficiary when two or more beneficiaries do not exist); and
- o in the case of a sole proprietor, the individual that is the proprietor.

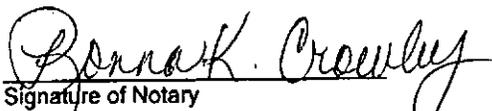
This Application for Permit is filed on the behalf of Centegra Health System \*  
in accordance with the requirements and procedures of the Illinois Health Facilities Planning Act. The undersigned certifies that he or she has the authority to execute and file this application for permit on behalf of the applicant entity. The undersigned further certifies that the data and information provided herein, and appended hereto, are complete and correct to the best of his or her knowledge and belief. The undersigned also certifies that the permit application fee required for this application is sent herewith or will be paid upon request.

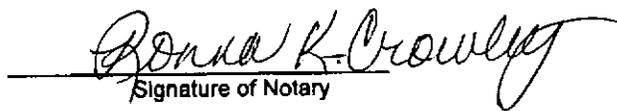
  
\_\_\_\_\_  
SIGNATURE  
Michael S. Fesley  
\_\_\_\_\_  
PRINTED NAME  
CEO  
\_\_\_\_\_  
PRINTED TITLE

  
\_\_\_\_\_  
SIGNATURE  
Charlie Zanck  
\_\_\_\_\_  
PRINTED NAME  
Chairman, Board of Governors  
\_\_\_\_\_  
PRINTED TITLE

Notarization:  
Subscribed and sworn to before me  
this 21 day of DECEMBER, 2010

Notarization:  
Subscribed and sworn to before me  
this 21 day of DECEMBER, 2010

  
\_\_\_\_\_  
Signature of Notary

  
\_\_\_\_\_  
Signature of Notary

Seal  
OFFICIAL SEAL  
RONNA K CROWLEY  
NOTARY PUBLIC - STATE OF ILLINOIS  
\*Insert EXACT legal name of the applicant

Seal  
OFFICIAL SEAL  
RONNA K CROWLEY  
NOTARY PUBLIC - STATE OF ILLINOIS  
MY COMMISSION EXPIRES: 09/07/11

### SECTION III – BACKGROUND, PURPOSE OF THE PROJECT, AND ALTERNATIVES - INFORMATION REQUIREMENTS

This Section is applicable to all projects except those that are solely for discontinuation with no project costs.

#### Criterion 1110.230 – Background, Purpose of the Project, and Alternatives

READ THE REVIEW CRITERION and provide the following required information:

##### BACKGROUND OF APPLICANT

1. A listing of all health care facilities owned or operated by the applicant, including licensing, and certification if applicable.
2. A certified listing of any adverse action taken against any facility owned and/or operated by the applicant during the three years prior to the filing of the application.
3. Authorization permitting HFSRB and DPH access to any documents necessary to verify the information submitted, including, but not limited to: official records of DPH or other State agencies; the licensing or certification records of other states, when applicable; and the records of nationally recognized accreditation organizations. **Failure to provide such authorization shall constitute an abandonment or withdrawal of the application without any further action by HFSRB.**
4. If, during a given calendar year, an applicant submits more than one application for permit, the documentation provided with the prior applications may be utilized to fulfill the information requirements of this criterion. In such instances, the applicant shall attest the information has been previously provided, cite the project number of the prior application, and certify that no changes have occurred regarding the information that has been previously provided. The applicant is able to submit amendments to previously submitted information, as needed, to update and/or clarify data.

APPEND DOCUMENTATION AS **ATTACHMENT-11**, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM. EACH ITEM (1-4) MUST BE IDENTIFIED IN ATTACHMENT 11.

##### PURPOSE OF PROJECT

1. Document that the project will provide health services that improve the health care or well-being of the market area population to be served.
2. Define the planning area or market area, or other, per the applicant's definition.
3. Identify the existing problems or issues that need to be addressed, as applicable and appropriate for the project. [See 1110.230(b) for examples of documentation.]
4. Cite the sources of the information provided as documentation.
5. Detail how the project will address or improve the previously referenced issues, as well as the population's health status and well-being.
6. Provide goals with quantified and measurable objectives, with specific timeframes that relate to achieving the stated goals as appropriate.

For projects involving modernization, describe the conditions being upgraded if any. For facility projects, include statements of age and condition and regulatory citations if any. For equipment being replaced, include repair and maintenance records.

**NOTE:** Information regarding the "Purpose of the Project" will be included in the State Agency Report.

APPEND DOCUMENTATION AS **ATTACHMENT-12**, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM. EACH ITEM (1-6) MUST BE IDENTIFIED IN ATTACHMENT 12.

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**ALTERNATIVES**

- 1) Identify **ALL** of the alternatives to the proposed project:

Alternative options **must** include:

- A) Proposing a project of greater or lesser scope and cost;
  - B) Pursuing a joint venture or similar arrangement with one or more providers or entities to meet all or a portion of the project's intended purposes; developing alternative settings to meet all or a portion of the project's intended purposes;
  - C) Utilizing other health care resources that are available to serve all or a portion of the population proposed to be served by the project; and
  - D) Provide the reasons why the chosen alternative was selected.
- 2) Documentation shall consist of a comparison of the project to alternative options. The comparison shall address issues of total costs, patient access, quality and financial benefits in both the short term (within one to three years after project completion) and long term. This may vary by project or situation. **FOR EVERY ALTERNATIVE IDENTIFIED THE TOTAL PROJECT COST AND THE REASONS WHY THE ALTERNATIVE WAS REJECTED MUST BE PROVIDED.**
- 3) The applicant shall provide empirical evidence, including quantified outcome data that verifies improved quality of care, as available.

**APPEND DOCUMENTATION AS ATTACHMENT-13, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.**

**SECTION IV - PROJECT SCOPE, UTILIZATION, AND UNFINISHED/SHELL SPACE**

**Criterion 1110.234 - Project Scope, Utilization, and Unfinished/Shell Space**

READ THE REVIEW CRITERION and provide the following information:

**SIZE OF PROJECT:**

1. Document that the amount of physical space proposed for the proposed project is necessary and not excessive. **This must be a narrative.**
2. If the gross square footage exceeds the BGSF/DGSF standards in Appendix B, justify the discrepancy by documenting one of the following:
  - a. Additional space is needed due to the scope of services provided, justified by clinical or operational needs, as supported by published data or studies;
  - b. The existing facility's physical configuration has constraints or impediments and requires an architectural design that results in a size exceeding the standards of Appendix B;
  - c. The project involves the conversion of existing space that results in excess square footage.

Provide a narrative for any discrepancies from the State Standard. A table must be provided in the following format with Attachment 14.

SIZE OF PROJECT				
DEPARTMENT/SERVICE	PROPOSED BGSF/DGSF	STATE STANDARD	DIFFERENCE	MET STANDARD?

APPEND DOCUMENTATION AS ATTACHMENT-14, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

**PROJECT SERVICES UTILIZATION:**

This criterion is applicable only to projects or portions of projects that involve services, functions or equipment for which HFSRB has established utilization standards or occupancy targets in 77 Ill. Adm. Code 1100.

Document that in the second year of operation, the annual utilization of the service or equipment shall meet or exceed the utilization standards specified in 1110.Appendix B. A narrative of the rationale that supports the projections must be provided.

A table must be provided in the following format with Attachment 15.

UTILIZATION					
	DEPT./ SERVICE	HISTORICAL UTILIZATION (PATIENT DAYS) (TREATMENTS) ETC.	PROJECTED UTILIZATION	STATE STANDARD	MET STANDARD?
YEAR 1					
YEAR 2					

APPEND DOCUMENTATION AS ATTACHMENT-15, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

**UNFINISHED OR SHELL SPACE:****NOT APPLICABLE BECAUSE THIS PROJECT DOES NOT INCLUDE SHELL SPACE**

Provide the following information:

1. Total gross square footage of the proposed shell space;
2. The anticipated use of the shell space, specifying the proposed GSF to be allocated to each department, area or function;
3. Evidence that the shell space is being constructed due to
  - a. Requirements of governmental or certification agencies; or
  - b. Experienced increases in the historical occupancy or utilization of those areas proposed to occupy the shell space.
4. Provide:
  - a. Historical utilization for the area for the latest five-year period for which data are available; and
  - b. Based upon the average annual percentage increase for that period, projections of future utilization of the area through the anticipated date when the shell space will be placed into operation.

APPEND DOCUMENTATION AS ATTACHMENT-16, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

**ASSURANCES:****NOT APPLICABLE BECAUSE THIS PROJECT DOES NOT INCLUDE SHELL SPACE**

Submit the following:

1. Verification that the applicant will submit to HFSRB a CON application to develop and utilize the shell space, regardless of the capital thresholds in effect at the time or the categories of service involved.
2. The estimated date by which the subsequent CON application (to develop and utilize the subject shell space) will be submitted; and
3. The anticipated date when the shell space will be completed and placed into operation.

APPEND DOCUMENTATION AS ATTACHMENT-17, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

**SECTION VII - SERVICE SPECIFIC REVIEW CRITERIA**

This Section is applicable to all projects proposing establishment, expansion or modernization of categories of service that are subject to CON review, as provided in the Illinois Health Facilities Planning Act [20 ILCS 3960]. It is comprised of information requirements for each category of service, as well as charts for each service, indicating the review criteria that must be addressed for each action (establishment, expansion and modernization). After identifying the applicable review criteria for each category of service involved, read the criteria and provide the required information, AS APPLICABLE TO THE CRITERIA THAT MUST BE ADDRESSED:

**A. Criterion 1110.530 - Medical/Surgical, Obstetric, Pediatric and Intensive Care**

1. Applicants proposing to establish, expand and/or modernize Medical/Surgical, Obstetric, Pediatric and/or Intensive Care categories of service must submit the following information:
2. Indicate bed capacity changes by Service:      Indicate # of beds changed by action(s):
- 3.

Category of Service	# Existing Beds	# Proposed Beds
<input checked="" type="checkbox"/> Medical/Surgical	0	100
<input checked="" type="checkbox"/> Obstetric	0	20
<input type="checkbox"/> Pediatric	0	0
<input checked="" type="checkbox"/> Intensive Care	0	8

3. READ the applicable review criteria outlined below and submit the required documentation for the criteria:

APPLICABLE REVIEW CRITERIA	Establish	Expand	Modernize
1110.530(b)(1) - Planning Area Need - 77 Ill. Adm. Code 1100 (formula calculation)	X		
1110.530(b)(2) - Planning Area Need - Service to Planning Area Residents	X	X	
1110.530(b)(3) - Planning Area Need - Service Demand - Establishment of Category of Service	X		
1110.530(b)(4) - Planning Area Need - Service Demand - Expansion of Existing Category of Service		X	
1110.530(b)(5) - Planning Area Need - Service Accessibility	X		
1110.530(c)(1) - Unnecessary Duplication of Services	X		
1110.530(c)(2) - Maldistribution	X	X	
1110.530(c)(3) - Impact of Project on Other Area Providers	X		
1110.530(d)(1) - Deteriorated Facilities			X
1110.530(d)(2) - Documentation			X

<b>APPLICABLE REVIEW CRITERIA</b>	<b>Establish</b>	<b>Expand</b>	<b>Modernize</b>
1110.530(d)(3) - Documentation Related to Cited Problems			X
1110.530(d)(4) - Occupancy			X
110.530(e) - Staffing Availability	X	X	
1110.530(f) - Performance Requirements	X	X	X
1110.530(g) - Assurances	X	X	X

APPEND DOCUMENTATION AS ATTACHMENT-20, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

**R. Criterion 1110.3030 - Clinical Service Areas Other than Categories of Service**

1. Applicants proposing to establish, expand and/or modernize Clinical Service Areas Other than Categories of Service must submit the following information:
2. Indicate changes by Service: Indicate # of key room changes by action(s):

Service	# Existing Key Rooms	# Proposed Key Rooms
<input checked="" type="checkbox"/> Surgery	0 Operating Rooms	8 Operating rooms
<input checked="" type="checkbox"/> Recovery (PACU)	0 Recovery Bays	8 Recovery Bays
<input checked="" type="checkbox"/> Surgical Prep/Stage II Recovery	0 Prep/Recovery Cubicles	32 Prep/ Recovery Cubicles
<input checked="" type="checkbox"/> Endoscopy	0 Procedure Rooms	2 Procedure Rooms
<input checked="" type="checkbox"/> Emergency Department	0 Treatment Rooms/Stations	13 Treatment Rooms/Stations
<input checked="" type="checkbox"/> Diagnostic Imaging	0 Units/Rooms	8 Units/Rooms (2 Gen. Rad., 1 Fluor., 2 Ultrasound, 1 CT Scanner, 1 MRI Scanner, 1 Nuclear Medicine)
<input checked="" type="checkbox"/> Labor/Delivery/Recovery Suite	0 LDRs	6 LDRs
<input checked="" type="checkbox"/> C-Section Suite	0 C-Section Rooms, 0 Recovery Stations	2 C-Section Rooms, 3 Recovery Stations
<input checked="" type="checkbox"/> Newborn Nurseries, Levels I & II	0 Nursery Stations	8 Level I Stations + 6 Level II Stations
<input checked="" type="checkbox"/> Inpatient PT/OT	0 Treatment Areas	1 Treatment Area
<input checked="" type="checkbox"/> Non-Invasive Diagnostic Cardiology	0 Exam Rooms	9 Exam Rooms
<input checked="" type="checkbox"/> Neurodiagnostics	0 Exam Rooms	1 Exam Room
<input checked="" type="checkbox"/> Pulmonary Function Testing	0 Exam Rooms	1 Exam Room
<input checked="" type="checkbox"/> Respiratory Therapy	Not Applicable	Not Applicable
<input checked="" type="checkbox"/> Inpatient Acute Dialysis	0 Patient Bays	4 Patient Bays
<input checked="" type="checkbox"/> Pre-Admission Testing	0 Exam Rooms or Toilets	3 Exam Rooms, 1 Toilet Room
<input checked="" type="checkbox"/> Clinical Lab, including Morgue	Not Applicable	Not Applicable
<input checked="" type="checkbox"/> Pharmacy	Not Applicable	Not Applicable
<input checked="" type="checkbox"/> Central Sterile Processing/ Distribution	Not Applicable	Not Applicable
<input checked="" type="checkbox"/> Dietary	Not Applicable	Not Applicable

3. READ the applicable review criteria outlined below and submit the required documentation for the criteria:

PROJECT TYPE	REQUIRED REVIEW CRITERIA	
New Services or Facility or Equipment	(b) -	Need Determination - Establishment
Service Modernization	(c)(1) -	Deteriorated Facilities
		and/or
	(c)(2) -	Necessary Expansion
		PLUS
	(c)(3)(A) -	Utilization - Major Medical Equipment
		Or
	(c)(3)(B) -	Utilization - Service or Facility

**APPEND DOCUMENTATION AS ATTACHMENT-37, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.**

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APPEND DOCUMENTATION AS ATTACHMENT 39, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

IX. 1120.130 - Financial Viability

**SEE ATTACHMENTS 39-41 FOR PROOF OF "A-" BOND RATING**

All the applicants and co-applicants shall be identified, specifying their roles in the project funding or guaranteeing the funding (sole responsibility or shared) and percentage of participation in that funding.

Financial Viability Waiver

The applicant is not required to submit financial viability ratios if:

1. All of the projects capital expenditures are completely funded through internal sources
2. The applicant's current debt financing or projected debt financing is insured or anticipated to be insured by MBIA (Municipal Bond Insurance Association Inc.) or equivalent
3. The applicant provides a third party surety bond or performance bond letter of credit from an A rated guarantor.

See Section 1120.130 Financial Waiver for information to be provided

APPEND DOCUMENTATION AS ATTACHMENT 40, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

The applicant or co-applicant that is responsible for funding or guaranteeing funding of the project shall provide viability ratios for the latest three years for which audited financial statements are available and for the first full fiscal year at target utilization, but no more than two years following project completion. When the applicant's facility does not have facility specific financial statements and the facility is a member of a health care system that has combined or consolidated financial statements, the system's viability ratios shall be provided. If the health care system includes one or more hospitals, the system's viability ratios shall be evaluated for conformance with the applicable hospital standards.

Provide Data for Projects Classified as:	Category A or Category B (last three years)			Category B (Projected)
Enter Historical and/or Projected Years:				
Current Ratio				
Net Margin Percentage				
Percent Debt to Total Capitalization				
Projected Debt Service Coverage				
Days Cash on Hand				
Cushion Ratio				

Provide the methodology and worksheets utilized in determining the ratios detailing the calculation and applicable line item amounts from the financial statements. Complete a separate table for each co-applicant and provide worksheets for each.

2. Variance

Applicants not in compliance with any of the viability ratios shall document that another organization, public or private, shall assume the legal responsibility to meet the debt obligations should the applicant default.

APPEND DOCUMENTATION AS ATTACHMENT 41, IN NUMERICAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

**X. 1120.140 - Economic Feasibility**

This section is applicable to all projects subject to Part 1120.

**A. Reasonableness of Financing Arrangements**

**SEE ATTACHMENTS 39-41 FOR PROOF OF "A-" BOND RATING**

The applicant shall document the reasonableness of financing arrangements by submitting a notarized statement signed by an authorized representative that attests to one of the following:

- 1) That the total estimated project costs and related costs will be funded in total with cash and equivalents, including investment securities, unrestricted funds, received pledge receipts and funded depreciation; or
- 2) That the total estimated project costs and related costs will be funded in total or in part by borrowing because:
  - A) A portion or all of the cash and equivalents must be retained in the balance sheet asset accounts in order to maintain a current ratio of at least 2.0 times for hospitals and 1.5 times for all other facilities; or
  - B) Borrowing is less costly than the liquidation of existing investments, and the existing investments being retained may be converted to cash or used to retire debt within a 60-day period.

**B. Conditions of Debt Financing**

This criterion is applicable only to projects that involve debt financing. The applicant shall document that the conditions of debt financing are reasonable by submitting a notarized statement signed by an authorized representative that attests to the following, as applicable:

- 1) That the selected form of debt financing for the project will be at the lowest net cost available;
- 2) That the selected form of debt financing will not be at the lowest net cost available, but is more advantageous due to such terms as prepayment privileges, no required mortgage, access to additional indebtedness, term (years), financing costs and other factors;
- 3) That the project involves (in total or in part) the leasing of equipment or facilities and that the expenses incurred with leasing a facility or equipment are less costly than constructing a new facility or purchasing new equipment.

**C. Reasonableness of Project and Related Costs**

Read the criterion and provide the following:

1. Identify each department or area impacted by the proposed project and provide a cost and square footage allocation for new construction and/or modernization using the following format (insert after this page).

COST AND GROSS SQUARE FEET BY DEPARTMENT OR SERVICE											
Department (list below)	A	B	C		D		E	F	G	H	Total Cost (G + H)
	Cost/Square Foot New	Mod.	Gross Sq. Ft. New	Circ.*	Gross Sq. Ft. Mod.	Circ.*	Const. \$ (A x C)	Mod. \$ (B x E)			
Contingency											
<b>TOTALS</b>											

\* Include the percentage (%) of space for circulation

**D. Projected Operating Costs**

The applicant shall provide the projected direct annual operating costs (in current dollars per equivalent

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COST AND GROSS SQUARE FEET BY DEPARTMENT OR SERVICE																			
Department (list below)	A		B		C		D		E		F		G		H		I		
	Cost/Sq. Foot		Gross Sq. Feet		Gross Sq. Feet		G New Const. \$		H Mod. \$		I Total Costs								
	New	Mod.	New	Circ.	Mod.	Circ.	(A x C)	(B x E)	(G + H)										
<b>Clinical Components:</b>																			
Medical/Surgical Service	\$360.50		59,112				\$21,309,876							\$21,309,876					
Intensive Care Service	\$375.50		5,415				\$2,033,332							\$2,033,332					
Obstetric Service	\$360.50		13,071				\$4,712,096							\$4,712,096					
Surgery	\$400.50		21,525				\$8,620,762							\$8,620,762					
Post-Anesthesia Recovery (PACU, Recovery)	\$355.45		1,382				\$491,230							\$491,230					
Surgical Prep./Stage II Recovery	\$360.49		12,717				\$4,584,298							\$4,584,298					
Endoscopy	\$375.50		2,175				\$816,713							\$816,713					
Emergency Department	\$355.50		10,431				\$3,708,221							\$3,708,221					
Diagnostic Imaging	\$370.50		10,785				\$3,995,843							\$3,995,843					
Labor-Delivery-Recovery Suite	\$365.51		9,445				\$3,452,257							\$3,452,257					
C-Section Suite	\$390.50		4,026				\$1,572,153							\$1,572,153					
Newborn Nurseries (Levels I and II)	\$370.48		3,167				\$1,173,299							\$1,173,299					
Inpatient Physical Therapy/Occupational Therapy	\$355.50		1,204				\$428,022							\$428,022					
Non-Invasive Diagnostic Cardiology,	\$350.50		7,830				\$2,744,415							\$2,744,415					
Neurodiagnostics, Pulmonary Function Testing																			
Respiratory Therapy	\$345.50		2,772				\$957,726							\$957,726					
Acute Inpatient Dialysis	\$365.50		1,904				\$695,912							\$695,912					
Pre-Admission/Pre-Procedure Testing	\$345.50		1,428				\$493,374							\$493,374					
Clinical Laboratory/Morgue	\$340.50		3,720				\$1,266,660							\$1,266,660					
Pharmacy	\$340.50		4,844				\$1,649,382							\$1,649,382					
Central Sterile Processing & Distribution	\$360.50		5,256				\$1,894,788							\$1,894,788					
Dietary (Food Services/Kitchen)	\$325.50		6,916				\$2,251,158							\$2,251,158					
<b>SUBTOTAL CLINICAL COMPONENTS</b>	<b>\$364.05</b>		<b>189,125</b>				<b>\$68,851,517</b>							<b>\$68,851,517</b>					
Contingency							\$6,341,913							\$6,341,913					
<b>TOTAL CLINICAL COMPONENTS</b>	<b>\$397.59</b>		<b>189,125</b>				<b>\$75,193,430</b>							<b>\$75,193,430</b>					
<b>TOTAL NON-CLINICAL COMPONENTS</b> (See Next Page)	<b>\$324.15</b>		<b>195,010</b>				<b>\$63,212,664</b>	<b>0</b>						<b>\$63,212,664</b>					
<b>PROJECT TOTAL</b>	<b>\$360.31</b>		<b>384,135</b>				<b>\$138,406,094</b>	<b>0</b>						<b>\$138,406,094</b>					

COST AND GROSS SQUARE FEET BY DEPARTMENT OR SERVICE												
Department (list below)	A	B	C		D		E		F	G	H	I
	Cost/Sq. Foot		Gross Sq. Feet		Gross Sq. Feet		G New Const. \$		H Mod. \$		I Total Costs	
	New	Mod.	New	Circ.	Mod.	Circ.	(A x C)		(B x E)		(G + H)	
<b>Non-Clinical Components:</b>												
Admitting/Patient Registration	\$355.56		2,412							\$857,608		\$857,608
Administration	\$307.00		9,734							\$2,988,338		\$2,988,338
Social Services (Case Management)	\$327.00		1,768							\$578,136		\$578,136
Quality Management/Infection Control	\$307.00		1,013							\$310,991		\$310,991
Facilities Management	\$302.00		3,616							\$1,092,032		\$1,092,032
Central On-Call Rooms	\$327.00		1,500							\$490,500		\$490,500
Conference Rooms/Education	\$339.50		10,535							\$3,576,632		\$3,576,632
Family Support Services	\$362.00		18,482							\$6,690,484		\$6,690,484
Housekeeping	\$282.00		3,275							\$923,550		\$923,550
Information Systems	\$342.00		6,962							\$2,381,004		\$2,381,004
Gift Shop	\$337.00		1,163							\$391,931		\$391,931
Mail Room	\$292.00		156							\$45,552		\$45,552
Materials Management/Loading Dock	\$292.00		9,529							\$2,782,468		\$2,782,468
Mechanical Space and Equipment	\$240.00		65,000							\$15,600,000		\$15,600,000
Medical Records	\$302.00		1,500							\$453,000		\$453,000
Servery and Dining Room	\$292.00		6,604							\$1,928,368		\$1,928,368
Biomedical Engineering	\$327.00		500							\$163,500		\$163,500
Pastoral Care	\$312.00		1,020							\$318,240		\$318,240
Physician Services	\$307.00		5,652							\$1,735,164		\$1,735,164
Security	\$312.00		348							\$108,576		\$108,576
Staff Support Services	\$357.00		2,386							\$851,802		\$851,802
Volunteers	\$302.00		420							\$126,840		\$126,840
Lobbies and Public Space	\$332.00		15,763							\$5,233,316		\$5,233,316
Interdepartmental Circulation	\$362.00		11,946							\$4,324,452		\$4,324,452
Stairs	\$292.00		5,808							\$1,695,936		\$1,695,936
Elevator Shafts/Elevators	\$282.00		7,918							\$2,232,876		\$2,232,876
<b>SUBTOTAL NON-CLINICAL COMPONENTS</b>	<b>\$296.81</b>		<b>195,010</b>							<b>\$57,881,298</b>		<b>\$57,881,298</b>
Contingency										\$5,331,368		\$5,331,368
<b>TOTAL NON-CLINICAL COMPONENTS</b>	<b>\$324.15</b>		<b>195,010</b>							<b>\$63,212,664</b>		<b>\$63,212,664</b>

patient day or unit of service) for the first full fiscal year at target utilization but no more than two years following project completion. Direct cost means the fully allocated costs of salaries, benefits and supplies for the service.

**FY2018 (7/1/2017-6/30/2018): \$ 1,772.**

**E. Total Effect of the Project on Capital Costs**

The applicant shall provide the total projected annual capital costs (in current dollars per equivalent patient day) for the first full fiscal year at target utilization but no more than two years following project completion.

**FY2018 (7/1/2017-6/30/2018): \$ 223.**

**APPEND DOCUMENTATION AS ATTACHMENT -42, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.**

**XI. Safety Net Impact Statement**

**SAFETY NET IMPACT STATEMENT that describes all of the following must be submitted for ALL SUBSTANTIVE AND DISCONTINUATION PROJECTS:**

1. The project's material impact, if any, on essential safety net services in the community, to the extent that it is feasible for an applicant to have such knowledge.
2. The project's impact on the ability of another provider or health care system to cross-subsidize safety net services, if reasonably known to the applicant.
3. How the discontinuation of a facility or service might impact the remaining safety net providers in a given community, if reasonably known by the applicant.

**Safety Net Impact Statements shall also include all of the following:**

1. For the 3 fiscal years prior to the application, a certification describing the amount of charity care provided by the applicant. The amount calculated by hospital applicants shall be in accordance with the reporting requirements for charity care reporting in the Illinois Community Benefits Act. Non-hospital applicants shall report charity care, at cost, in accordance with an appropriate methodology specified by the Board.
2. For the 3 fiscal years prior to the application, a certification of the amount of care provided to Medicaid patients. Hospital and non-hospital applicants shall provide Medicaid information in a manner consistent with the information reported each year to the Illinois Department of Public Health regarding "Inpatients and Outpatients Served by Payor Source" and "Inpatient and Outpatient Net Revenue by Payor Source" as required by the Board under Section 13 of this Act and published in the Annual Hospital Profile.
3. Any information the applicant believes is directly relevant to safety net services, including information regarding teaching, research, and any other service.

**A table in the following format must be provided as part of Attachment 43.**

Safety Net Information per PA 96-0031			
CHARITY CARE			
Charity (# of patients)	Year	Year	Year
Inpatient			
Outpatient			
<b>Total</b>			
Charity (cost in dollars)	Year	Year	Year
Inpatient			
Outpatient			
<b>Total</b>			
MEDICAID			
Medicaid (# of patients)	Year	Year	Year
Inpatient			
Outpatient			
<b>Total</b>			
Medicaid (revenue)			

	Inpatient			
	Outpatient			
	Total			

APPEND DOCUMENTATION AS ATTACHMENT-43, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

**XII. Charity Care Information**

Charity Care information MUST be furnished for ALL projects.

1. All applicants and co-applicants shall indicate the amount of charity care for the latest three audited fiscal years, the cost of charity care and the ratio of that charity care cost to net patient revenue.
2. If the applicant owns or operates one or more facilities, the reporting shall be for each individual facility located in Illinois. If charity care costs are reported on a consolidated basis, the applicant shall provide documentation as to the cost of charity care; the ratio of that charity care to the net patient revenue for the consolidated financial statement; the allocation of charity care costs; and the ratio of charity care cost to net patient revenue for the facility under review.
3. If the applicant is not an existing facility, it shall submit the facility's projected patient mix by payer source, anticipated charity care expense and projected ratio of charity care to net patient revenue by the end of its second year of operation.

Charity care" means care provided by a health care facility for which the provider does not expect to receive payment from the patient or a third-party payer. (20 ILCS 3960/3) Charity Care must be provided at cost.

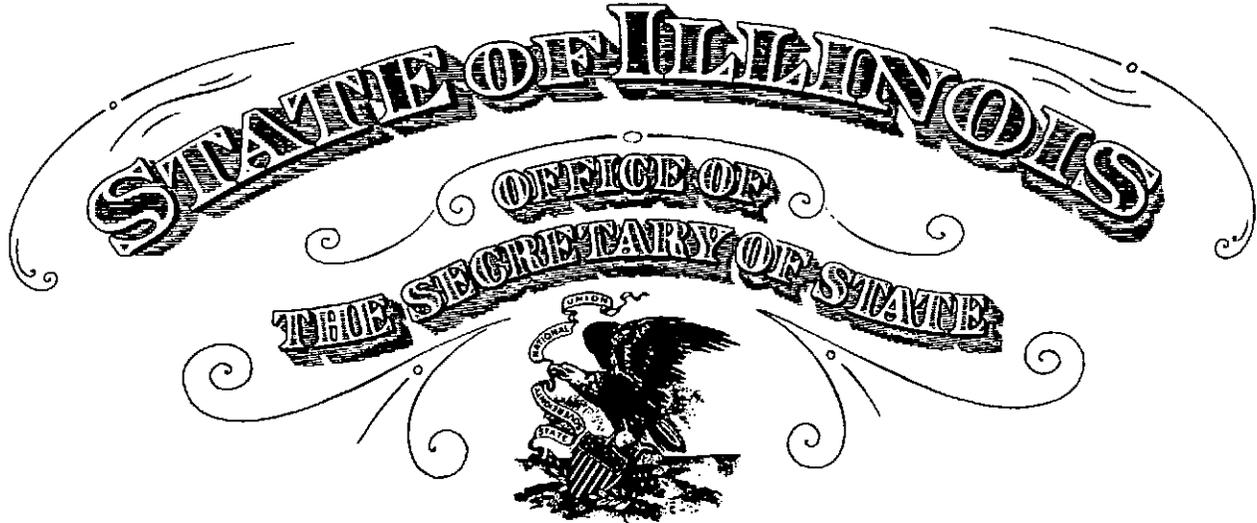
A table in the following format must be provided for all facilities as part of Attachment 44.

CHARITY CARE			
	Year	Year	Year
Net Patient Revenue			
Amount of Charity Care (charges)			
Cost of Charity Care			

APPEND DOCUMENTATION AS ATTACHMENT-44, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

After paginating the entire, completed application, indicate in the chart below, the page numbers for the attachments included as part of the project's application for permit:

INDEX OF ATTACHMENTS		
ATTACHMENT NO.		PAGES
1	Applicant/Coapplicant Identification including Certificate of Good Standing	40-41
2	Site Ownership	42-50
3	Persons with 5 percent or greater interest in the licensee must be identified with the % of ownership.	51
4	Organizational Relationships (Organizational Chart) Certificate of Good Standing Etc.	52-53
5	Flood Plain Requirements	54-55
6	Historic Preservation Act Requirements	60-61
7	Project and Sources of Funds Itemization	62-81
8	Obligation Document if required	82
9	Cost Space Requirements	83-84
10	Discontinuation	
11	Background of the Applicant	85-100
12	Purpose of the Project	101-132
13	Alternatives to the Project	133-139
14	Size of the Project	140-265
15	Project Service Utilization	266-276
16	Unfinished or Shell Space	
17	Assurances for Unfinished/Shell Space	
18	Master Design Project	
19	Mergers, Consolidations and Acquisitions	
	<b>Service Specific:</b>	277-424
20	Medical Surgical Pediatrics, Obstetrics, ICU	
21	Comprehensive Physical Rehabilitation	
22	Acute Mental Illness	
23	Neonatal Intensive Care	
24	Open Heart Surgery	
25	Cardiac Catheterization	
26	In-Center Hemodialysis	
27	Non-Hospital Based Ambulatory Surgery	
28	General Long Term Care	
29	Specialized Long Term Care	
30	Selected Organ Transplantation	
31	Kidney Transplantation	
32	Subacute Care Hospital Model	
33	Post Surgical Recovery Care Center	
34	Children's Community-Based Health Care Center	
35	Community-Based Residential Rehabilitation Center	
36	Long Term Acute Care Hospital	
37	Clinical Service Areas Other than Categories of Service	425-465
38	Freestanding Emergency Center Medical Services	
	<b>Financial and Economic Feasibility:</b>	
39	Availability of Funds	} 466-474
40	Financial Waiver	
41	Financial Viability	
42	Economic Feasibility	475-476
43	Safety Net Impact Statement	477-515
44	Charity Care Information	516-517



*To all to whom these Presents Shall Come, Greeting:*

*I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that*

CENTEGRA HOSPITAL - HUNTLEY, A DOMESTIC CORPORATION, INCORPORATED UNDER THE LAWS OF THIS STATE ON DECEMBER 15, 2010, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE GENERAL NOT FOR PROFIT CORPORATION ACT OF THIS STATE, AND AS OF THIS DATE, IS IN GOOD STANDING AS A DOMESTIC CORPORATION IN THE STATE OF ILLINOIS.



Authentication #: 1035100984

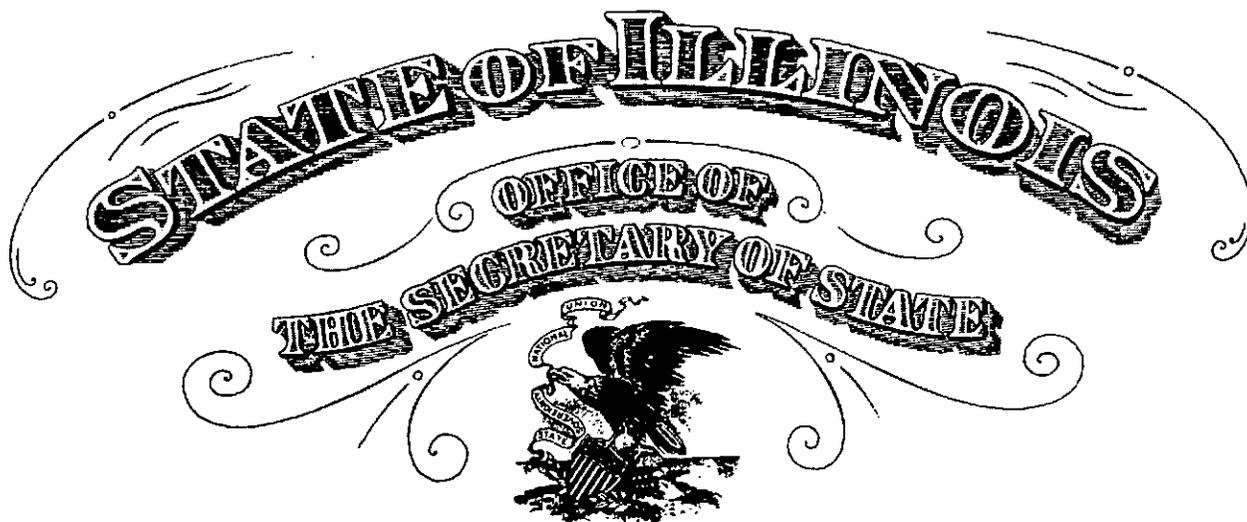
Authenticate at: <http://www.cyberdriveillinois.com>

*In Testimony Whereof, I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this 17TH day of DECEMBER A.D. 2010 .*

*Jesse White*

SECRETARY OF STATE

ATTACHMENT-1, PAGE 1



*To all to whom these Presents Shall Come, Greeting:*

*I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that*

CENTEGRA HEALTH SYSTEM, A DOMESTIC CORPORATION, INCORPORATED UNDER THE LAWS OF THIS STATE ON JUNE 01, 1982, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE GENERAL NOT FOR PROFIT CORPORATION ACT OF THIS STATE, AND AS OF THIS DATE, IS IN GOOD STANDING AS A DOMESTIC CORPORATION IN THE STATE OF ILLINOIS.

*In Testimony Whereof, I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this 26TH day of NOVEMBER A.D. 2010*



Authentication #: 1033000616

Authenticate at: <http://www.cyberdriveillinois.com>

*Jesse White*

SECRETARY OF STATE

I.  
Site Ownership

The site description is found on Page 2 of this Attachment.

There are 4 parcels in this site that are covered by 2 Quit Claim Deeds. Each of the Quit Claim Deeds is included in this Attachment, followed by a description of the parcels covered under that Quit Claim Deed.

Legal Description

THE NORTHEAST QUARTER OF SECTION 27, TOWNSHIP 43 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, EXCEPT THE WEST 40.00 FEET THEREOF, ALSO EXCEPT THAT PART OF SAID NORTHEAST QUARTER DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID NORTHEAST QUARTER, THENCE SOUTH 89 DEGREES 28 MINUTES 50 SECONDS WEST ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER FOR 1400.00 FEET; THENCE NORTH 00 DEGREES 01 MINUTES 49 SECONDS EAST PARALLEL WITH THE EAST LINE OF THE SAID NORTHEAST QUARTER FOR 1395.03 FEET; THENCE NORTH 89 DEGREES 31 MINUTES 41 SECONDS EAST ALONG A LINE PARALLEL WITH THE NORTH LINE OF ALGONQUIN ROAD FOR 1399.99 FEET TO THE EAST LINE OF SAID NORTHEAST QUARTER; THENCE SOUTH 00 DEGREES 01 MINUTE 49 SECONDS WEST 1398.87 FEET TO THE PLACE OF BEGINNING, ALL IN MCHENRY COUNTY, ILLINOIS.



\* 2 0 0 7 R 0 0 4 5 3 3 5 5 \*

MCHENRY COUNTY RECORDER  
PHYLLIS K. WALTERS

2007R0045335

06/29/2007 04:30PM PAGES 5  
RECORDING FEE 27.00  
COUNTY STAMP FEE 0.00  
STATE STAMP FEE 0.00  
RHSPS HOUSING FEE 10.00

This instrument was prepared  
by and after recording should  
be returned to:

Lawrence A. Eiben, Esq.  
Bell, Boyd & Lloyd LLP  
70 West Madison, Ste. 3100  
Chicago, IL 60602

**QUIT CLAIM DEED**

**CENTEGRA HEALTH SYSTEM, an Illinois not-for-profit corporation (the "Grantor")**  
**QUIT CLAIMS and CONVEYS to NIMED CORP., an Illinois not-for-profit corporation,**  
of 385 Millennium Drive, Crystal Lake, Illinois 60012 ("Grantee"), for and in consideration of  
the sum of TEN DOLLARS (\$10.00) and other good and valuable consideration, the receipt and  
sufficiency of which is hereby acknowledged, the following described real estate in McHenry  
County, State of Illinois, to wit:

SEE ATTACHED EXHIBIT "A"

hereby releasing and waiving all rights under and by virtue of the Homestead Exemption Laws  
of the State of Illinois.

ADDRESS OF REAL ESTATE: Vacant - Algonquin Road, McHenry County, Illinois

P.I.N.(s): 18-27-020-004-0000 (affects part and other property) and 18-27-200-005 (affects part)

IN WITNESS WHEREOF, Grantor has executed this Quit Claim deed this 29<sup>th</sup> day  
of June, 2007.

CENTEGRA HEALTH SYSTEM, an  
Illinois not-for-profit corporation

By: [Signature]  
Name: Robert Rosenberger  
Its: Chief Financial Officer

Tax-exempt under provisions of Section 31-45, paragraph (b) of the Illinois Recordation and Transfer Tax  
Act.

[Signature]  
Buyer, Seller or Representative

31.00

07-028-2430

STATE OF ILLINOIS        )  
                                  )SS.  
COUNTY OF \_\_\_\_\_ )

I, the undersigned, a Notary Public in and for said County, in the State aforesaid, DO HEREBY CERTIFY that ROBERT M. ROSENBERG CFO of Centegra Health System, and personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person, and acknowledged that he/she signed, sealed and delivered the said instrument as his/her free and voluntary act, for the uses and purposes therein set forth including the waiver of homestead.

Given under my hand and official seal, this 29<sup>th</sup> day of June, 2007.

My commission expires: 12/5/07.

Dianne R. McLaren  
Notary Public



EXHIBIT "A"

LEGAL DESCRIPTION

PARCEL 1:

THAT PART OF THE NORTHEAST QUARTER OF SECTION 27, TOWNSHIP 43 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID NORTHEAST QUARTER; THENCE NORTH 89 DEGREES 35 MINUTES 16 SECONDS EAST ALONG THE NORTH LINE OF SAID NORTHEAST QUARTER, 40.00 FEET TO THE NORTHEAST CORNER OF THE WEST 40.00 FEET OF SAID NORTHEAST QUARTER PER DOCUMENT NUMBER 2006R0060601; THENCE SOUTH 00 DEGREES 00 MINUTES 46 SECONDS EAST ALONG THE EAST LINE OF THE WEST 40.00 FEET OF SAID NORTHEAST QUARTER, 1781.57 FEET TO THE POINT OF BEGINNING; THENCE NORTH 89 DEGREES 32 MINUTES 43 SECONDS EAST, 924.87 FEET; THENCE SOUTH 00 DEGREES 05 MINUTES 24 SECONDS WEST, 48.59 FEET; THENCE SOUTHEASTERLY 185.44 FEET ALONG A TANGENTIAL CURVE TO THE LEFT, HAVING A RADIUS OF 250.00 FEET AND A CHORD THAT BEARS SOUTH 21 DEGREES 09 MINUTES 36 SECONDS EAST, A CHORD DISTANCE OF 181.22 FEET; THENCE SOUTH 42 DEGREES, 24 MINUTES 36 SECONDS EAST, 72.67 FEET; THENCE SOUTHEASTERLY 185.44 FEET ALONG A TANGENTIAL CURVE TO THE RIGHT HAVING A RADIUS OF 250.00 FEET AND A CHORD THAT BEARS SOUTH 21 DEGREES 09 MINUTES 36 SECONDS EAST, A CHORD DISTANCE OF 181.22 FEET; THENCE SOUTH 00 DEGREES 05 MINUTES 24 SECONDS WEST, 343.89 FEET TO THE NORTH RIGHT-OF-WAY LINE OF HUNTLEY-ALGONQUIN ROAD PER DOCUMENT NUMBER 2007R0028313; THENCE SOUTH 89 DEGREES 35 MINUTES 34 SECONDS WEST ALONG THE SAID NORTH RIGHT-OF-WAY LINE, 1053.92 FEET; THENCE NORTH 45 DEGREES 12 MINUTES 36 SECONDS WEST, ALONG THE SAID NORTH RIGHT-OF-WAY LINE, 70.47 FEET TO THE EAST LINE OF THE AFORESAID WEST 40.00 FEET OF THE NORTHEAST QUARTER; THENCE NORTH 00 DEGREES 00 MINUTES 46 SECONDS WEST ALONG THE EAST LINE OF SAID WEST 40,00 FEET, 734.63 FEET FOR THE POINT OF BEGINNING, ALL IN McHENRY COUNTY, ILLINOIS. CONTAINING 18.86 ACRES OF LAND, MORE OR LESS.

PARCEL 2:

THAT PART OF THE NORTHEAST QUARTER OF SECTION 27, TOWNSHIP 43 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS; COMMENCING AT THE NORTHWEST CORNER OF SAID NORTHEAST QUARTER; THENCE NORTH 89 DEGREES 35 MINUTES 16 SECONDS EAST ALONG THE NORTH LINE OF SAID NORTHEAST QUARTER, 40.00 FEET TO THE NORTHEAST CORNER OF THE WEST 40.00 FEET OF SAID NORTHEAST QUARTER PER DOCUMENT NUMBER 2006R0060601; THENCE SOUTH 00 DEGREES 00 MINUTES 46 SECONDS EAST ALONG THE EAST LINE OF SAID WEST 40.00 FEET, 1127.95 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 89 DEGREES 55 MINUTES 55 SECONDS EAST 926.00 FEET; THENCE SOUTH 00 DEGREES 05 MINUTES 24 SECONDS WEST, 645.18 FEET; THENCE SOUTH 89 DEGREES 32 MINUTES 43 SECONDS WEST, 924.87 FEET TO THE EAST LINE OF THE AFORESAID WEST 40.00 FEET OF THE NORTHEAST QUARTER; THENCE NORTH 00 DEGREES 00 MINUTES 46 SECONDS WEST ALONG SAID EAST LINE, 653.62 FEET FOR THE POINT OF BEGINNING, ALL IN McHENRY COUNTY, ILLINOIS. CONTAINING 13.80 ACRES OF LAND, MORE OR LESS.

PARCEL 3:

THAT PART OF THE NORTHEAST QUARTER OF SECTION 27, TOWNSHIP 43 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID NORTHEAST QUARTER; THENCE NORTH 89 DEGREES 35 MINUTES 16 SECONDS EAST ALONG THE NORTH LINE OF SAID NORTHEAST QUARTER, 40.00 FEET TO THE NORTHEAST CORNER OF THE WEST 40.00 FEET OF SAID NORTHEAST QUARTER PER DOCUMENT NUMBER 2006R0060601; THENCE SOUTH 00 DEGREES 00 MINUTES 46 SECONDS EAST ALONG THE EAST LINE OF THE WEST 40.00 FEET OF SAID QUARTER, 1127.95 FEET; THENCE SOUTH 89 DEGREES 55 MINUTES 55 SECONDS EAST, 926.00 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 89 DEGREES 55 MINUTES 55 SECONDS EAST, 265.92 FEET TO THE NORTHERLY EXTENSION OF THE WEST LINE OF LANDS DESCRIBED IN DOCUMENT NUMBER 2006R0062660 (EXHIBIT D), THENCE SOUTH 00 DEGREES 05 MINUTES 15 SECONDS WEST ALONG SAID EXTENSION, 100.16 FEET TO THE NORTHWEST CORNER THEREOF; THENCE CONTINUING SOUTH 00 DEGREES 15 MINUTES 05 SECONDS WEST ALONG THE SAID WEST LINE, 1328.22 FEET TO THE NORTH RIGHT-OF-WAY LINE OF HUNTLEY-ALGONQUIN ROAD PER DOCUMENT NUMBER 2007R0028313; THENCE SOUTH 89 DEGREES 35 MINUTES 34 SECONDS WEST ALONG THE SAID NORTH RIGHT-OF-WAY LINE, 85.53 FEET; THENCE NORTH 00 DEGREES 05 MINUTES 24 SECONDS EAST, 343.89 FEET; THENCE NORTHWESTERLY 185.44 FEET ALONG A TANGENTIAL CURVE TO THE LEFT, HAVING A RADIUS OF 250.00 FEET AND A CHORD THAT BEARS NORTH 21 DEGREES 09 MINUTES 46 SECONDS WEST, A CHORD DISTANCE OF 181.22 FEET; THENCE NORTH 42 DEGREES 24 MINUTES 36 SECONDS WEST, 72.67 FEET; THENCE NORTHWESTERLY 185.44 FEET ALONG A TANGENTIAL CURVE TO THE RIGHT, HAVING A RADIUS OF 250.00 FEET AND A CHORD THAT BEARS NORTH 21 DEGREES 09 MINUTES 36 SECONDS WEST, A CHORD DISTANCE OF 181.22 FEET; THENCE NORTH 00 DEGREES 05 MINUTES 24 SECONDS EAST, 693.77 FEET FOR THE POINT OF BEGINNING, ALL IN McHENRY COUNTY, ILLINOIS. CONTAINING 6.49 ACRES OF LAND, MORE OR LESS.

Common Address: Vacant – Algonquin Road, McHenry County, Illinois

P.I.N.(s): 18-27-020-004-0000 (affects part and other property) and 18-27-200-005 (affects part)

Send Subsequent Tax Bill To:  
4309 Medical Center Drive  
McHenry, Illinois 60050-8499

R✓

(5)



**QUIT CLAIM DEED**  
(Statutory Illinois)

NAME and ADDRESS OF TAXPAYER:

NIMED CORP.,  
an Illinois Not for Profit Corporation  
4209 W. Shamrock Lane, Suite B  
McHenry, IL 60050

MCHEMRY COUNTY RECORDER  
PHYLLIS K. WALTERS  
*2009R0006134*  
**2009R0006134**  
02/10/2009 03:07PM PAGES 5  
RECORDING FEE 41.00  
COUNTY STAMP FEE 0.00  
STATE STAMP FEE 0.00  
RHSPS HOUSING FEE 10.00

THE GRANTOR: CENTEGRA HEALTH SYSTEM, an Illinois Not for Profit Corporation, of the County of McHenry, State of Illinois, for and in consideration of TEN AND NO/100 (\$10.00) DOLLARS and other good and valuable considerations in hand paid,

CONVEYS and QUIT CLAIMS to NIMED CORP., an Illinois Not for Profit Corporation, (GRANTEE'S ADDRESS): 4209 W. Shamrock Lane, Suite B, McHenry, Illinois 60050,

all interest in the following described Real Estate situated in the County of McHenry, in the State of Illinois, to wit:

**SEE ATTACHED LEGAL DESCRIPTION**

hereby releasing and waiving all rights under and by virtue of the Homestead Exemption Laws of the State of Illinois. TO HAVE AND TO HOLD said premises forever.

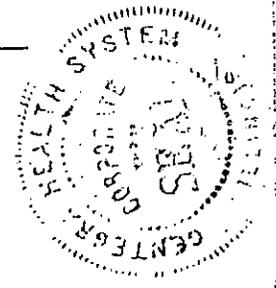
Permanent Real Estate Index Number(s): 18-27-200-005 and part of 18-27-200-004  
Address of Real Estate: Vacant Land, 70.83 acres +/-, Reed Rd. and Haligus Rd., McHenry County, Illinois.

In Witness Whereof, said Grantor has caused its corporate seal to be hereto affixed, and has caused its name to be signed to these presents by MICHAEL S. EESLEY its President, and attested by JASON SCIARRO its Chief Operating Officer, this 31 day of DECEMBER, 2008.

CENTEGRA HEALTH SYSTEM

By:

ATTEST:



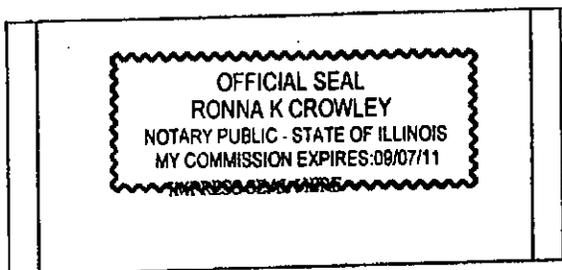
51.00

STATE OF ILLINOIS )  
 ) SS.  
COUNTY OF McHENRY )

I, the undersigned, a Notary Public, in and for the County and State aforesaid, DO HEREBY CERTIFY, that MICHAEL S. EESLEY personally known to me to be PRESIDENT authorized by CENTEGRA HEALTH SYSTEM, to execute this Deed and personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that as an authorized Officer, signed and delivered the said instrument pursuant to authority given by the Board of Directors of said corporation, as his/her free and voluntary act, and as the free and voluntary act and deed of said corporation, for the uses and purposes therein set forth.

Given under my hand and official seal, this 31 day of DECEMBER, 2008.

Ronna K. Crowley  
Notary Public



NAME AND ADDRESS OF PREPARER  
AFTER RECORDING RETURN TO:  
Thomas C. Zanck  
Zanck, Coen & Wright, P.C. (MT)  
40 Brink Street  
Crystal Lake, Illinois, 60014

McHENRY COUNTY - ILLINOIS TRANSFER STAMP EXEMPT  
UNDER PROVISIONS OF SECTION 200/31-45(e) OF THE REAL ESTATE  
TRANSFER LAW.

DATED: 12/9/2008  
Thomas C. Zanck  
Buyer, Seller or Representative

\*\*This conveyance must contain the name and address of the Grantee for tax billing purposes: (55 ILCS 5/3-5020) and name and address of the person preparing the instrument: (55 ILCS 5/3-5022).

**LEGAL DESCRIPTION**

**70.83 +/- Acres, Reed Rd. and Haligus Rd., McHenry County, Illinois**

THAT PART OF THE NORTHEAST QUARTER OF SECTION 27, TOWNSHIP 43 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID NORTHEAST QUARTER; THENCE NORTH 89 DEGREES 35 MINUTES 16 SECONDS EAST ALONG THE NORTH LINE OF SAID NORTHEAST QUARTER, 40.00 FEET TO THE NORTHEAST CORNER OF THE WEST 40.00 FEET OF SAID NORTHEAST QUARTER PER DOCUMENT NUMBER 2006R0060601 AND THE POINT OF BEGINNING; THENCE CONTINUING ALONG THE NORTH LINE OF SAID NORTHEAST QUARTER, NORTH 89 DEGREES 35 MINUTES 16 SECONDS EAST, 2593.92 FEET TO THE NORTHEAST CORNER OF SAID NORTHEAST QUARTER, THENCE SOUTH 00 DEGREES 05 MINUTES 15 SECONDS WEST ALONG THE EAST LINE OF SAID NORTHEAST QUARTER (ALSO BEING THE WEST LINE OF SPRING LAKE FARM SOUTH UNIT 11, PER DOCUMENT NO. 1993R058543), 1237.88 FEET TO THE NORTHEAST CORNER OF LANDS DESCRIBED IN DOCUMENT NUMBER 2006R0062660 (EXHIBIT D), THENCE SOUTH 89 DEGREES 35 MINUTES 06 SECONDS WEST ALONG THE NORTH LINE OF LANDS DESCRIBED IN DOCUMENT NUMBER 2006R0062660 (EXHIBIT D), 1399.87 FEET TO THE NORTHWEST CORNER OF SAID LANDS; THENCE NORTH 00 DEGREES 05 MINUTES 24 SECONDS EAST ALONG THE NORTHERLY EXTENSION OF SAID WEST LINE, 100.00 FEET; THENCE NORTH 89 DEGREES 55 MINUTES 55 SECONDS WEST, 1193.64 FEET TO THE EAST LINE OF THE AFORESAID WEST 40.00 FEET OF THE NORTHEAST QUARTER; THENCE NORTH 00 DEGREES 04 MINUTES 05 SECONDS EAST ALONG SAID EAST LINE, 1127.94 FEET FOR THE POINT OF BEGINNING, ALL IN McHENRY COUNTY, ILLINOIS, CONTAINING 70.83 ACRES OF LAND, MORE OR LESS.



**To all to whom these Presents Shall Come, Greeting:**

*I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that*

CENTGRA HOSPITAL - HUNTLEY, A DOMESTIC CORPORATION, INCORPORATED UNDER THE LAWS OF THIS STATE ON DECEMBER 15, 2010, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE GENERAL NOT FOR PROFIT CORPORATION ACT OF THIS STATE, AND AS OF THIS DATE, IS IN GOOD STANDING AS A DOMESTIC CORPORATION IN THE STATE OF ILLINOIS.



Authentication #: 1035100984

Authenticate at: <http://www.cyberdriveillinois.com>

**In Testimony Whereof,** I hereto set  
my hand and cause to be affixed the Great Seal of  
the State of Illinois, this 17TH  
day of DECEMBER A.D. 2010 .

*Jesse White*

SECRETARY OF STATE

I.  
Organizational Relationships

This project has 2 co-applicants: Centegra Hospital - Huntley and Centegra Health System.

As will be seen on the Organizational Chart that appears on the following page and as discussed in Attachment 11, Centegra Health System is the sole corporate member of Centegra Hospital - Huntley.

Centegra Health System currently operates 3 hospitals: Centegra Northern Illinois Medical Center d/b/a Centegra Hospital - McHenry; Centegra Memorial Medical Center d/b/a Centegra Hospital - Woodstock; and Centegra Memorial Medical Center, South Street d/b/a Centegra Specialty Hospital - Woodstock, South Street.

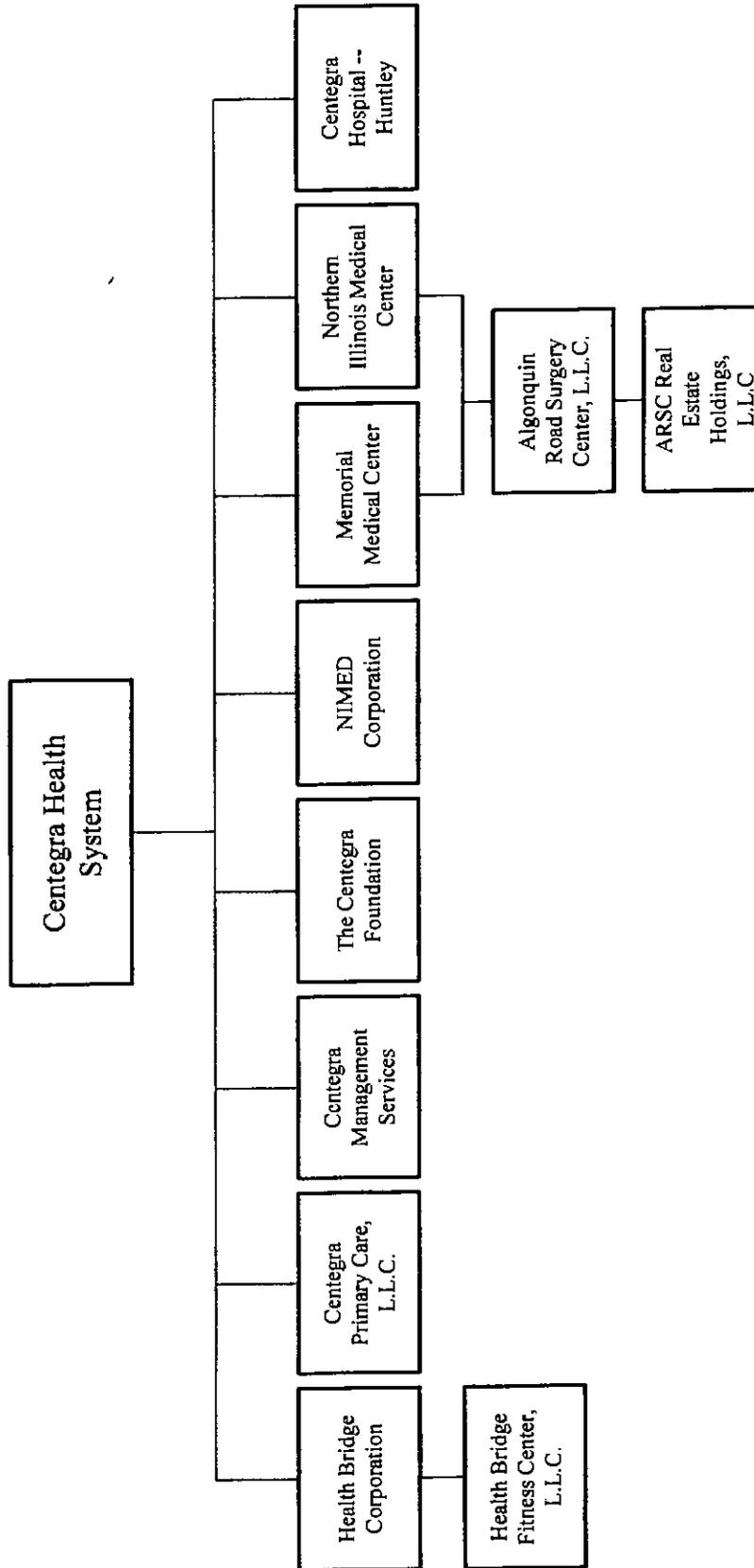
Centegra Health System will provide the equity funding for this project.

Revenue bonds for the project will be issued in the name of the Centegra Health System.

Centegra Health System will lease the CT Scanner and MRI Scanner that will be acquired as part of this project.

A Corporate Organization Chart will be found on the next page.

**Centegra Health System and Affiliated Entities: Corporate Organization Structure**  
**As of December 2010**



I.  
Flood Plain Requirements

The following pages of this Attachment include the most recent documents regarding this project's compliance with the requirements of Illinois Executive Order #2006-5 pertaining to construction activities in special flood hazard areas.

These documents include an Illinois State Water Survey Special Flood Hazard Area Determination (dated December 26, 2006) that Centegra Health System's Huntley campus, on which Centegra Hospital - Huntley will be located, is not located in a Special Flood Hazard Area and a Flood Insurance Rate Map (FIRM) for Centegra Health System's Huntley campus documenting the same.

A statement attesting to the project's compliance with the requirements of Illinois Executive Order #2006-5, Construction Activities in Special Flood Hazard Areas, is found on Page 6 of this Attachment.



# Illinois State Water Survey

Main Office • 2204 Griffith Drive • Champaign, IL 61820-7495 • Tel (217) 333-2210 • Fax (217) 333-6540  
Peoria Office • P.O. Box 697 • Peoria, IL 61652-0697 • Tel (309) 671-3196 • Fax (309) 671-3106



## Special Flood Hazard Area Determination pursuant to Governor's Executive Order 5 (2006) (supersedes Governor's Executive Order 4 (1979))

Requester: Michael I. Copelin  
Address: Copelin Health Care Consulting, 42 Birch Lake Drive  
City, state, zip: Sherman, IL 62684 Telephone: (217) 496-3712

### Site description of determination:

Site address: NE corner Huntley-Algonquin Road and future Haligus Road.  
City, state, zip: Huntley, IL  
County: McHenry Sec¼: NE¼ Section: 27 T. 43 N. R. 7 E. PM: 3rd  
Subject area: Area described in Schedule "A" dated 8/21/06, attached. (The NE 1/4 Sec. 27 except the W 40 ft thereof and except approximately the S 1400 ft of the E 1400 ft thereof, south of Reed Road and north of Huntley-Algonquin Rd).

The property described above IS NOT located in a Special Flood Hazard Area or a shaded Zone X floodzone.  
Floodway mapped: Yes Floodway on property: No  
Sources used: FEMA Flood Insurance Rate Map (FIRM); Village of Huntley Zoning Map 3/30/2006 (www.huntley.il.us).  
Community name: McHenry County Uninc. Areas, IL Community number: 170732  
Panel/map number: 17111C0320 J Effective Date: November 16, 2006  
Flood zone: X [unshaded] Base flood elevation: N/A ft NGVD 1929

- N/A a. The community does not currently participate in the National Flood Insurance Program (NFIP). NFIP flood insurance is not available; certain State and Federal assistance may not be available.  
N/A b. Panel not printed: no Special Flood Hazard Area on the panel (panel designated all Zone C or unshaded X).  
N/A c. No map panels printed: no Special Flood Hazard Areas within the community (NSFHA).

### The primary structure on the property:

- N/A d. Is located in a Special Flood Hazard Area. Any activity on the property must meet State, Federal, and local floodplain development regulations. Federal law requires that a flood insurance policy be obtained as a condition of a federally-backed mortgage or loan that is secured by the building.  
N/A c. Is located in shaded Zone X or B (500-yr floodplain). Conditions may apply for local permits or Federal funding.  
X f. Is not located in a Special Flood Hazard Area or a 500-year floodplain. (Flood insurance may still be available.)  
N/A g. A determination of the building's exact location cannot be made on the current FEMA flood hazard map.  
N/A h. Exact structure location is not available or was not provided for this determination.

**Note:** This determination is based on the current Federal Emergency Management Agency (FEMA) flood hazard map for the community. This letter does not imply that the referenced property will or will not be free from flooding or damage. A property or structure not in a Special Flood Hazard Area may be damaged by a flood greater than that predicted on the FEMA map or by local drainage problems not mapped. This letter does not create liability on the part of the Illinois State Water Survey, or employee thereof for any damage that results from reliance on this determination. This letter does not exempt the project from local stormwater management regulations.

Questions concerning this determination may be directed to Bill Saylor (217/333-0447) at the Illinois State Water Survey. Questions concerning requirements of Governor's Executive Order 5 (2006), or State floodplain regulations, may be directed to John Lentz (847/608-3100) at the IDNR Office of Water Resources.

  
William Saylor, CFM IL-02-00107, Illinois State Water Survey

Title: ISWS Surface Water & Floodplain Information Date: 12/26/2006

Printed on recycled paper

055

CHICAGO TITLE INSURANCE COMPANY  
OWNER'S POLICY (1992)  
SCHEDULE A (CONTINUED)

POLICY NO.: 1409 002B41066 NSC

5. THE LAND REFERRED TO IN THIS POLICY IS DESCRIBED AS FOLLOWS:

THE NORTHEAST QUARTER OF SECTION 27 TOWNSHIP 43 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, EXCEPT THE WEST 40.00 FEET THEREOF, ALSO EXCEPT THAT PART OF SAID NORTHEAST QUARTER DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHEAST CORNER OF SAID NORTHEAST 1/4, THENCE SOUTH 89 DEGREES 28 MINUTES 50 SECONDS WEST ALONG THE SOUTH LINE OF SAID NORTHEAST 1/4 FOR 1400.00 FEET; THENCE NORTH 00 DEGREES 01 MINUTES 49 SECONDS EAST PARALLEL WITH THE EAST LINE OF THE SAID NORTHEAST 1/4 FOR 1395.03 FEET; THENCE NORTH 89 DEGREES 31 MINUTES 41 SECONDS EAST ALONG A LINE PARALLEL WITH THE NORTH LINE OF ALGONQUIN ROAD FOR 1399.99 FEET TO THE EAST LINE OF SAID NORTHEAST 1/4; THENCE SOUTH 00 DEGREES 01 MINUTE 49 SECONDS WEST 1398.87 FEET TO THE PLACE OF BEGINNING, IN MCHEMRY COUNTY, ILLINOIS.

THIS POLICY VALID ONLY IF SCHEDULE B IS ATTACHED.

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# LEGEND

## SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

## FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

## OTHER FLOOD AREAS

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

## OTHER AREAS

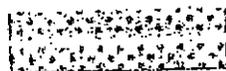
- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.

## COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

## OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

-  1% annual chance floodplain boundary
-  0.2% annual chance floodplain boundary
-  Floodway boundary
-  Zone D boundary
-  CBRS and OPA boundary



Boundary dividing : Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

December 2, 2010

Mr. Michael Constantino  
Project Review Supervisor  
Illinois Health Facilities and Services Review Board  
525 W. Jefferson  
Second Floor  
Springfield, Illinois 62702

Re: Compliance with Requirements of Illinois Executive Order #2006-5  
Regarding Construction Activities in Special Flood Hazard Areas

Dear Mr. Constantino:

The undersigned are authorized representatives of NIMED Corp., the owner of the site on which the proposed Centegra Hospital – Huntley will be located. Centegra Health System's Ambulatory Care Center is currently located on this site.

We hereby attest that this site is not located on a flood plain, as identified by the most recent FEMA Flood Insurance Rate Map for this location, and that this location complies with the Flood Plain Rule and the requirements stated under Illinois Executive Order #2006-5, "Construction Activities in the Special Flood Hazard Areas."

Signed and dated as of December 2, 2010:

NIMED Corp.  
Illinois Corporation

By: [Signature]  
Its: CEO

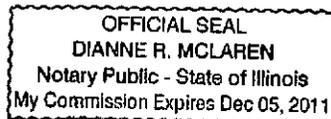
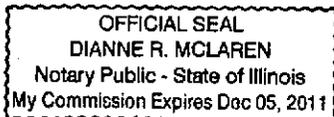
By: [Signature]  
Its: PRESIDENT/COO

SUBSCRIBED and SWORN to before me  
this 1<sup>st</sup> day of December, 2010.

SUBSCRIBED and SWORN to before me  
this 1<sup>st</sup> day of December, 2010.

[Signature]  
Notary Public

[Signature]  
Notary Public



I.  
Historic Resources Preservation Act Requirements

The letter from the Illinois Historic Preservation Agency that is found on the next page of this Attachment documents that the campus of the proposed Centegra Hospital - Huntley is in compliance with the requirements of Section 4 of the Historic Resources Preservation Act (20 ILCS 3420/1 et. seq.).



# Illinois Historic Preservation Agency

1 Old State Capitol Plaza • Springfield, Illinois 62701-1512 • [www.illinois-history.gov](http://www.illinois-history.gov)

McHenry County  
Huntley

PLEASE REFER TO: IHPA LOG #008102010

East from the East side of Haligas Road, between Algonquin Road and Reed Road  
New Construction with Connecting Corridor/Centegra Health System

November 3, 2010

Andrea R. Rozran  
Diversified Health Resources  
65 E. Scott, Suite 9A  
Chicago, IL 60610-5274

Dear Ms. Rozran:

The Illinois Historic Preservation Agency is required by the Illinois State Agency Historic Resources Preservation Act (20 ILCS 3420, as amended, 17 IAC 4180) to review all state funded, permitted or licensed undertakings for their effect on cultural resources. Pursuant to this, we have received information regarding the referenced project for our comment.

Our staff has reviewed the specifications under the state law and assessed the impact of the project as submitted by your office. We have determined, based on the available information, that no significant historic, architectural or archaeological resources are located within the proposed project area.

According to the information you have provided concerning your proposed project, apparently there is no federal involvement in your project. However, please note that the state law is less restrictive than federal cultural resource laws concerning archaeology. If your project will use federal loans or grants, need federal agency permits, use federal property, or involve assistance from a federal agency, then your project must be reviewed under the National Historic Preservation Act of 1966, as amended. Please notify us immediately if such is the case.

This clearance remains in effect for two (2) years from date of issuance. It does not pertain to any discovery during construction, nor is it a clearance for purposes of the IL Human Skeletal Remains Protection Act (20 ILCS 3440).

Please retain this letter in your files as evidence of compliance with the Illinois State Agency Historic Resources Preservation Act.

Sincerely,

Anne E. Haaker  
Deputy State Historic  
Preservation Officer

AEH

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**CENTEGRA HOSPITAL - HUNTLEY**

	<u>Clinical</u>	<u>Clinical Subtotal</u>	<u>Non-Clinical</u>	<u>Non-Clinical Subtotal</u>	<u>Total</u>
<b>1. Preplanning Costs</b>					
Programming	\$147,276		\$102,724		\$250,000
Architectural Preliminary Design	\$963,182		\$671,818		\$1,635,000
Architectural Master Planning/Block Planning	\$29,455		\$20,545		\$50,000
CQN Consultant Preplanning/Reimbursement	\$73,638		\$51,362		\$125,000
Preplanning	\$412,372		\$287,628		\$700,000
Project Feasibility Planning	\$44,182		\$30,818		\$75,000
Reimbursables for Preplanning Costs	<u>\$58,910</u>		<u>\$41,090</u>		<u>\$100,000</u>
		\$1,729,015		\$1,205,985	\$2,935,000
<b>2. Site Survey and Soil Investigation</b>					
Site Survey	\$14,770		\$15,230		\$30,000
Geotechnical	\$14,770		\$15,230		\$30,000
Environmental Survey	<u>\$12,309</u>		<u>\$12,691</u>		<u>\$25,000</u>
		\$41,849		\$43,151	\$85,000
<b>3. Site Preparation</b>					
Grading Under Building	\$443,105		\$456,895		\$900,000
Site Infrastructure	\$492,339		\$507,661		\$1,000,000
Grading Contingency	<u>\$93,544</u>		<u>\$96,456</u>		<u>\$190,000</u>
		\$1,028,988		\$1,061,012	\$2,090,000
<b>4. Offsite Work</b>					
Grading	\$1,969,355		\$2,030,645		\$4,000,000
Site Development (Paving)	\$886,210		\$913,790		\$1,800,000
Site Development Contingency	\$285,556		\$294,444		\$580,000
Utility Extensions	\$246,189		\$253,831		\$500,000
Site Utilities & Lighting	\$886,210		\$913,790		\$1,800,000
Exterior Signage	\$98,468		\$101,532		\$200,000
Landscaping Allowance	\$738,508		\$761,492		\$1,500,000
Roof Garden/Green Roof	<u>\$246,168</u>		<u>\$253,832</u>		<u>\$500,000</u>
		\$5,356,644		\$5,523,356	\$10,880,000
<b>5. Consulting and Other Fees</b>					
Interior Design	\$158,330		\$163,257		\$321,587
Development Pre-Planning	\$59,081		\$60,919		\$120,000
Development Pre-Construction	\$561,559		\$579,036		\$1,140,595
Construction Manager Pre-Construction	\$56,619		\$58,381		\$115,000
Construction Development Services	\$811,141		\$836,386		\$1,647,527
Landscape Architect	\$54,157		\$55,843		\$110,000
Civil Engineer Fee	\$141,794		\$146,206		\$288,000
Traffic Engineer	\$12,308		\$12,692		\$25,000
Low Voltage/Security Engineer	\$123,085		\$126,915		\$250,000
MEP Commissioning Consultant	\$0		\$200,000		\$200,000
Food Service Consultant	\$73,908		\$21,092		\$95,000
Medical Equipment Planner	\$175,000		\$0		\$175,000
Signage Design	\$61,542		\$63,458		\$125,000
A/E Reimbursables	\$183,302		\$189,006		\$372,308
A/E Renderings/Models	\$12,308		\$12,692		\$25,000
Interior Design Reimbursables	\$8,862		\$9,138		\$18,000
Development Reimbursables	\$54,908		\$56,617		\$111,525
Landscape Architect Reimbursables	\$3,791		\$3,909		\$7,700
Civil Engineer Reimbursables	\$9,926		\$10,234		\$20,160
Other Reimbursables	\$49,234		\$50,766		\$100,000
Construction Testing Services	\$172,319		\$177,681		\$350,000
CQN Consulting Fee/Reimbursables	\$73,851		\$76,149		\$150,000
CQN Review Fee	\$100,000		\$0		\$100,000
IDPH Plan Examination Fee	\$19,694		\$20,306		\$40,000
Building Permit: Local	\$311,977		\$321,687		\$633,664
Public Utility Connection Fees	\$187,186		\$193,012		\$380,198
Zoning/Site Plan Approval	\$24,617		\$25,383		\$50,000
Builders Risk Insurance	\$124,791		\$128,674		\$253,465
Legal Fees	\$49,234		\$50,766		\$100,000
Other Consultants	\$49,234		\$50,766		\$100,000
Miscellaneous/Owner's Printing	\$49,234		\$50,766		\$100,000
Mock-Up Rooms	<u>\$200,000</u>		<u>\$0</u>		<u>\$200,000</u>
		\$3,972,892		\$3,751,737	\$7,724,729

**CENTEGRA HOSPITAL - HUNTLEY**

	<u>Clinical</u>	<u>Clinical Subtotal</u>	<u>Non-Clinical</u>	<u>Non-Clinical Subtotal</u>	<u>Total</u>
<b>6. Movable or Other Equipment (see attached Lists)</b>					
Medical Equipment	\$16,646,200		\$248,000		\$16,894,200
Kitchen Equipment	\$1,080,000		\$650,000		\$1,730,000
Furniture/Artwork	\$2,519,682		\$981,047		\$3,500,729
Signage	\$141,843		\$146,258		\$288,101
Information/Telecom Systems	<u>\$3,782,488</u>		<u>\$4,039,448</u>		<u>\$7,821,936</u>
		\$24,170,213		\$6,064,753	\$30,234,966
<b>7. Bond Issuance Expense</b>					
Issuer Fee	\$108,315		\$111,685		\$220,000
Issuer Counsel	\$9,847		\$10,153		\$20,000
Bond Counsel	\$135,393		\$139,607		\$275,000
Borrower's Counsel	\$54,157		\$55,843		\$110,000
Underwriter's Counsel	\$39,387		\$40,613		\$80,000
Trustee	\$2,462		\$2,538		\$5,000
Auditor	\$29,540		\$30,460		\$60,000
Two Rating Agency Fees	\$81,236		\$83,764		\$185,000
Printer	\$4,923		\$5,077		\$10,000
Underwriter's Fee	\$984,678		\$1,015,322		\$2,000,000
Miscellaneous Fees/Contingency	<u>\$27,078</u>		<u>\$27,922</u>		<u>\$55,000</u>
		\$1,477,016		\$1,522,984	\$3,000,000
<b>8. Fair Market Value of Leased Equipment</b>					
CT Scanner	\$800,000		\$0		
MRI Scanner	<u>\$1,350,000</u>		<u>\$0</u>		
		\$2,150,000		\$0	\$2,150,000
<b>9. Other Costs to be Capitalized</b>					
Final Clean	\$94,562		\$97,505		\$192,067
Excess Utility Chrges	<u>\$98,468</u>		<u>\$101,532</u>		\$200,000
		\$193,030		\$199,037	\$392,067

Centegra Hospital - Huntley

Area	Description	Quantity	Unit Price	Total Cost	Comments
<b>Clinical</b>					
1.00	<b>Medical/Surgical Nursing Units</b>			\$ 2,340,000	
	Beds	100	\$ 12,000	\$ 1,200,000	
	Overbed Tables	100	\$ 1,200	\$ 120,000	
	Patient Recliner & MD Stool	100	\$ 3,000	\$ 300,000	
	Patient Lift	100	\$ -	\$ -	
	Pyxis/Med Prep	8	\$ 15,000	\$ 120,000	
	Refrigerators/storage/major equip	8	\$ 25,000	\$ 200,000	
	Misc	100	\$ 4,000	\$ 400,000	
2.00	<b>Intensive Care Unit</b>			\$ 682,600	
	Beds	8	\$ 40,000	\$ 320,000	
	Overbed Tables	8	\$ 1,200	\$ 9,600	
	Patient Recliner & MD Stool	8	\$ 3,000	\$ 24,000	
	Patient Lift	8	\$ 8,000	\$ 64,000	
	Pyxis/Med Prep	8	\$ 15,000	\$ 120,000	
	Refrigerators/storage/major equip	1	\$ 25,000	\$ 25,000	
	Misc	8	\$ 15,000	\$ 120,000	
3.00	<b>Labor/Delivery/Recovery Unit</b>			\$ 300,200	
	Beds	6	\$ 20,000	\$ 120,000	
	Overbed Tables	6	\$ 1,200	\$ 7,200	
	Patient Recliner & MD Stool	6	\$ 3,000	\$ 18,000	
	Patient Lift	0	\$ 8,000	\$ -	
	Pyxis/Med Prep	1	\$ 15,000	\$ 15,000	
	Refrigerators/storage/major equip	2	\$ 25,000	\$ 50,000	
	Misc	6	\$ 25,000	\$ 150,000	
4.00	<b>C-Section Suite</b>			\$ 467,000	
	OR Table/Bed	2	\$ 15,000	\$ 30,000	
	Recovery Stretcher	3	\$ 4,000	\$ 12,000	
	Pyxis/Med Prep	1	\$ 15,000	\$ 15,000	
	Surgical Lights	2	\$ 15,000	\$ 30,000	
	Technology Boom	2	\$ 40,000	\$ 80,000	
	Patient Monitoring	5	\$ 15,000	\$ 75,000	
	Anesthesia Machine	1	\$ 25,000	\$ 25,000	
	Misc	2	\$ 100,000	\$ 200,000	
5.00	<b>Obstetrics</b>			\$ 647,000	
	Beds	20	\$ 12,000	\$ 240,000	
	Overbed Tables	20	\$ 1,200	\$ 24,000	
	Patient Recliner & MD Stool	29	\$ 3,000	\$ 87,000	
	Patient Lift	2	\$ 8,000	\$ 16,000	
	Pyxis/Med Prep	2	\$ 15,000	\$ 30,000	
	Refrigerators/storage/major equip	2	\$ 25,000	\$ 50,000	
	Misc	20	\$ 10,000	\$ 200,000	

Centegra Hospital - Huntley

Area	Description	Quantity	Unit Price	Total Cost	Comments
6.00	<b>Well Baby Nursery &amp; Level 2</b>			<b>269,400</b>	
	Cribs	12	\$ 1,200	\$ 14,400	
	Family Recliners	5	\$ 2,000	\$ 10,000	
	Refrigerators/storage/major equip	2	\$ 25,000	\$ 50,000	
	Pyxis/Med Prep	1	\$ 15,000	\$ 15,000	
	Misc	12	\$ 15,000	\$ 180,000	
7.00	<b>Emergency</b>			<b>543,000</b>	
	Carts	10	\$ 3,000	\$ 30,000	
	Exam lights	10	\$ 900	\$ 9,000	
	Exam lights - Trauma	2	\$ 12,000	\$ 24,000	
	Refrigerators/storage/major equip	10	\$ 5,000	\$ 50,000	
	Patient Monitoring	12	\$ 20,000	\$ 240,000	
	Trauma Equipment	2	\$ 5,000	\$ 10,000	
	Pyxis/Med Prep	2	\$ 15,000	\$ 30,000	
	Mobile Equip	10	\$ 15,000	\$ 150,000	
8.00	<b>Surgery</b>			<b>3,104,000</b>	
	Table	6	\$ 25,000	\$ 150,000	
	Light	6	\$ 30,000	\$ 180,000	
	Technology Boom	14	\$ 40,000	\$ 560,000	
	Anesthesia Machine	6	\$ 25,000	\$ 150,000	
	Video Integration	6	\$ 30,000	\$ 180,000	
	Carts, tables, storage	6	\$ 75,000	\$ 450,000	
	Instruments	6	\$ 125,000	\$ 750,000	
	Scrub sinks	6	\$ 14,000	\$ 84,000	
	Misc	6	\$ 100,000	\$ 600,000	
9.00	<b>Endoscopy</b>			<b>536,000</b>	
	Carts	4	\$ 5,000	\$ 20,000	
	Procedure Equipment	3	\$ 75,000	\$ 225,000	
	Decontamination	1	\$ 45,000	\$ 45,000	
	Clean Processing	1	\$ 45,000	\$ 45,000	
	Scopes	8	\$ 12,000	\$ 96,000	
	Misc	1	\$ 75,000	\$ 75,000	
	Pyxis/Med Prep	2	\$ 15,000	\$ 30,000	
10.00	<b>Surgery Prep/Recovery (Phase 2)</b>			<b>1,005,000</b>	
	Carts	34	\$ 5,000	\$ 170,000	
	Patient Recliner	32	\$ 3,000	\$ 96,000	
	Patient Monitoring	32	\$ 12,000	\$ 384,000	
	Pyxis/Med Prep	3	\$ 20,000	\$ 60,000	
	Nutrition	3	\$ 15,000	\$ 45,000	
	Clean supply	3	\$ 30,000	\$ 90,000	
	Misc	32	\$ 5,000	\$ 160,000	
11.00	<b>PACU</b>			<b>260,000</b>	
	Carts	10	\$ 5,000	\$ 50,000	
	Patient Monitoring	10	\$ 12,000	\$ 120,000	
	Pyxis/Med Prep	1	\$ 25,000	\$ 25,000	
	Nutrition	1	\$ 20,000	\$ 20,000	
	Clean supply	1	\$ 15,000	\$ 15,000	
	Misc	6	\$ 5,000	\$ 30,000	

Centegra Hospital - Huntley

Area	Description	Quantity	Unit Price	Total Cost	Comments
12.00	<b>Diagnostic Imaging</b>		\$	3,117,000	
	Gen Radiography	2	\$ 300,000	\$ 600,000	
	Radiography/Fluoroscopy	1	\$ 650,000	\$ 650,000	
	Ultrasound	2	\$ 240,000	\$ 480,000	
	Nuclear Med	1	\$ 450,000	\$ 450,000	
	Portable Rad	2	\$ 240,000	\$ 480,000	
	Pacs	1	\$ 100,000	\$ 100,000	
	Clean supply	3	\$ 15,000	\$ 45,000	
	Patient Monitoring	6	\$ 12,000	\$ 72,000	
	Physis/Med Prep	1	\$ 15,000	\$ 15,000	
	Misc	9	\$ 25,000	\$ 225,000	
	MRI & injector			Leased	
	CT			Leased	
	MRI & injector	1	\$ 1,350,000	\$ 1,350,000	Leased
	CT	1	\$ 800,000	\$ 800,000	Leased
13.00	<b>Non-invasive Cardiology</b>		\$	1,240,000	
	Echo/Ultrasound	2	\$ 250,000	\$ 500,000	
	Vascular Lab	1	\$ 240,000	\$ 240,000	
	EKG	4	\$ 12,000	\$ 48,000	
	PFT	1	\$ 60,000	\$ 60,000	
	BEG/EMG	1	\$ 75,000	\$ 75,000	
	Holter / Tilt	1	\$ 50,000	\$ 50,000	
	Patient Monitoring	6	\$ 12,000	\$ 72,000	
	Physis/Med Prep	1	\$ 15,000	\$ 15,000	
	Misc	9	\$ 20,000	\$ 180,000	
14.00	<b>Inpatient Dialysis</b>		\$	90,000	
	Stations	4	\$ 2,000	\$ 8,000	
	Water Filtration	1	\$ 75,000	\$ 75,000	
	Physis/Med Prep	1	\$ 5,000	\$ 5,000	
	Misc	1	\$ 2,000	\$ 2,000	
15.00	<b>PT/OT</b>		\$	101,000	
	Treatment table	2	\$ 5,000	\$ 10,000	
	Paralleled Bars	1	\$ 6,000	\$ 6,000	
	Treadmill	1	\$ 10,000	\$ 10,000	
	Misc	1	\$ 75,000	\$ 75,000	

Centegra Hospital - Huntley

Area	Description	Quantity	Unit Price	Total Cost	Comments
16.00	<b>Medical Equipment</b>				
	Laboratory / Morgue			\$ 611,000	
	Chemistry	1	\$ 130,000	\$ 130,000	
	Hematology	1	\$ 115,000	\$ 115,000	
	Urinalysis	1	\$ 26,000	\$ 26,000	
	Coagulation	1	\$ 43,000	\$ 43,000	
	Blood Bank	1	\$ 28,000	\$ 28,000	
	Microbiology	1	\$ 10,000	\$ 10,000	
	Refrigerator/Freezers	1	\$ 45,000	\$ 45,000	
	Interface/Printers	1	\$ 84,000	\$ 84,000	
	Misc	1	\$ 100,000	\$ 100,000	
	Body Cooler/Hold	1	\$ 30,000	\$ 30,000	
17.00	<b>Pharmacy</b>				
	Dispensers	1	\$ 100,000	\$ 100,000	
	Hoods/IV Prep	3	\$ 40,000	\$ 120,000	
	Refrigerator/Freezers	1	\$ 45,000	\$ 45,000	
	Misc	1	\$ 90,000	\$ 90,000	
18.00	<b>Respiratory Therapy</b>				
	Respirators	10	\$ 20,000	\$ 200,000	
	Supply Storage	1	\$ 30,000	\$ 30,000	
	Misc	1	\$ 30,000	\$ 30,000	
19.00	<b>Pre-Admission Testing</b>				
	Exam Tables	1	\$ 24,000	\$ 24,000	
	Scales & Instrumentation	1	\$ 12,000	\$ 12,000	
	Lights	1	\$ 6,000	\$ 6,000	
	Misc	1	\$ 10,000	\$ 10,000	
20.00	<b>Dietary</b>				
	Prep	1	\$ 200,000	\$ 200,000	
	Cooking (ovens & grills)	1	\$ 345,000	\$ 345,000	
	Refrigerator & freezer	1	\$ 210,000	\$ 210,000	
	Dishwashing	1	\$ 75,000	\$ 75,000	
	Misc	1	\$ 250,000	\$ 250,000	
21.00	<b>Central Sterile Processing</b>				
	Sterilizer	2	\$ 100,000	\$ 200,000	
	Wash/Decontamination	2	\$ 30,000	\$ 60,000	
	Care Carts	24	\$ 4,000	\$ 96,000	
	Assembly	1	\$ 50,000	\$ 50,000	
	Instrumentation	1	\$ 125,000	\$ 125,000	
	Misc	1	\$ 75,000	\$ 75,000	
				\$ 616,000	
				\$ 200,000	
				\$ 345,000	
				\$ 210,000	
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				\$ 75,000	
				\$ 250,000	
				\$ 1,080,000	Food Service Equipment
				\$ 200,000	
				\$ 345,000	
				\$ 210,000	
				\$ 75,000	
				\$ 250,000	

Centegra Hospital - Huntley

Description	Quantity	Unit Price	Total Cost	Comments
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Clinical

1.00	Medical/Surgical Nursing Units			
	Family Sofa	\$ 19.65	\$ 1,161,551	
	Side Chair/Recliner			
	Table			
	NS Chairs			
	Lounge Furniture			
	Misc			
				\$ 2,519,682

2.00	Intensive Care Unit			
	Family Sofa	\$ 19.65	\$ 106,405	
	Side Chair/Recliner			
	Table			
	NS Chairs			
	Lounge Furniture			
	Misc			

3.00	Labor/Delivery/Recovery Unit			
	Family Sofa	\$ 19.65	\$ 185,600	
	Side Chair/Recliner			
	Table			
	NS Chairs			
	Lounge Furniture			
	Misc			

4.00	C-Section Suite			
	Area Allocation	\$ 3.93	\$ 15,822	
	Staff task chairs / workstations			
	Misc			

5.00	Obstetrics			
	Family Sofa	\$ 19.65	\$ 256,845	
	Side Chair/Recliner			
	Table			
	NS Chairs			
	Lounge Furniture			
	Misc			

Centegra Hospital - Huntley

Description	Quantity	Unit Price	Total Cost	Comments
<b>6.00 Well Baby Nursery &amp; Level 2</b>				
Area Allocation	3,167	\$ 17.69	\$ 56,005	
Staff task chairs / workstations				
Family chairs / recliners				
Misc				
<b>7.00 Emergency</b>				
Area Allocation	10,431	\$ 15.72	\$ 163,975	
Staff task chairs / workstations				
Family chairs / recliners				
Lounge chairs / tables				
Staff offices				
Conference table / chairs				
Misc				
<b>8.00 Surgery</b>				
Area Allocation	21,525	\$ 3.93	\$ 84,593	
Staff task chairs / workstations				
Misc				
<b>9.00 Endoscopy</b>				
Area Allocation	2,175	\$ 3.93	\$ 8,548	
Staff task chairs / workstations				
Misc				
<b>10.00 Surgery Prep/Recovery (Phase 2)</b>				
Area Allocation	12,717	\$ 11.79	\$ 149,928	
Staff task chairs / workstations				
Family chairs / recliners				
Lounge chairs / tables				
Staff offices				
Conference table / chairs				
Misc				
<b>11.00 PACU</b>				
Area Allocation	1,382	\$ 3.93	\$ 5,430	
Staff task chairs / workstations				
Misc				

Centegra Hospital - Huntley

Description	Quantity	Unit Price	Total Cost	Comments
<b>Diagnostic Imaging</b>				
Area Allocation	10,785	\$ 7.86	\$ 84,770	
Staff task chairs / workstations			\$ 84,770	
Lounge chairs / tables				
Staff offices				
Misc				

12.00

<b>Non-invasive Cardiology</b>				
Area Allocation	7,830	\$ 3.93	\$ 30,772	
Staff task chairs / workstations			\$ 30,772	
Lounge chairs / tables				
Staff offices				
Misc				

13.00

<b>Inpatient Dialysis</b>				
Area Allocation	1,904	\$ 3.93	\$ 7,483	
Staff task chairs / workstations			\$ 7,483	
Misc				

14.00

<b>PT/OT</b>				
Area Allocation	1,204	\$ 7.86	\$ 9,463	
Staff task chairs / workstations			\$ 9,463	
Staff offices				
Misc				

15.00

Centegra Hospital - Huntley

Description	Quantity	Unit Price	Total Cost	Comments
<b>16.00</b>				
Laboratory / Marquee				
Area Allocation	3,720	\$ 11.79	\$ 43,859	
Staff task chairs / workstations				
Lounge chairs / tables				
Staff offices				
Misc				
<b>17.00</b>				
<b>Pharmacy</b>				
Area Allocation	4,844	\$ 11.79	\$ 57,111	
Staff task chairs / workstations				
Lounge chairs / tables				
Staff offices				
Misc				
<b>18.00</b>				
<b>Respiratory Therapy</b>				
Area Allocation	2,772	\$ 3.93	\$ 10,894	
Staff task chairs / workstations				
Lounge chairs / tables				
Staff offices				
Misc				
<b>19.00</b>				
<b>Pre-Admission Testing</b>				
Area Allocation	1,428	\$ 3.93	\$ 5,612	
Staff task chairs / workstations				
Staff offices				
Misc				
<b>20.00</b>				
<b>Dietary</b>				
Area Allocation	6,916	\$ 7.86	\$ 54,360	
Staff Lounge chairs / tables				
Staff offices				
Misc				
<b>21.00</b>				
<b>Central Sterile Processing</b>				
Area Allocation	5,256	\$ 3.93	\$ 20,656	
Staff task chairs / workstations				
Staff offices				
Misc				

071

Subtotal Centegra \$ 2319,682

Centegra Hospital - Huntley

Description	Quantity	Unit Price	Total Cost	Comments
<b>Clinical</b>				
<b>1.00 Medical/Surgical Nursing Units</b>				
Computers/printers/copiers	59,112	\$ 20.00	\$ 1,182,240	
Telecommunications			\$ 1,182,240	
Structured Cable				
Cable Tray				
Network Equipment				
DAS				
<b>2.00 Intensive Care Unit</b>				
Computers/printers/copiers	5,415	\$ 20.00	\$ 108,300	
Telecommunications			\$ 108,300	
Structured Cable				
Cable Tray				
Network Equipment				
DAS				
<b>3.00 Labor/Delivery/Recovery Unit</b>				
Computers/printers/copiers	9,445	\$ 20.00	\$ 188,906	
Telecommunications			\$ 188,906	
Structured Cable				
Cable Tray				
Network Equipment				
DAS				
<b>4.00 C-Section Suite</b>				
Computers/printers/copiers	4,026	\$ 20.00	\$ 80,520	
Telecommunications			\$ 80,520	
Structured Cable				
Cable Tray				
Network Equipment				
DAS				
<b>5.00 Obstetrics</b>				
Computers/printers/copiers	13,071	\$ 20.00	\$ 261,420	
Telecommunications			\$ 261,420	
Structured Cable				
Cable Tray				
Network Equipment				
DAS				

Centegra Hospital - Huntley

Description	Quantity	Unit Price	Total Cost	Comments
<b>6.00 Well Baby Nursery &amp; Level 2</b>				
Computers/printers/copiers	3,167	\$ 20.00	\$ 63,336	
Telecommunications				
Structured Cable				
Cable Tray				
Network Equipment				
DAS				
<b>7.00 Emergency</b>				
Computers/printers/copiers	10,431	\$ 20.00	\$ 208,620	
Telecommunications				
Structured Cable				
Cable Tray				
Network Equipment				
DAS				
<b>8.00 Surgery</b>				
Computers/printers/copiers	21,525	\$ 20.00	\$ 430,500	
Telecommunications				
Structured Cable				
Cable Tray				
Network Equipment				
DAS				
<b>9.00 Endoscopy</b>				
Computers/printers/copiers	2,175	\$ 20.00	\$ 43,500	
Telecommunications				
Structured Cable				
Cable Tray				
Network Equipment				
DAS				
<b>10.00 Surgery Prep/Recovery (Phase 2)</b>				
Computers/printers/copiers	12,717	\$ 20.00	\$ 254,330	
Telecommunications				
Structured Cable				
Cable Tray				
Network Equipment				
DAS				
<b>11.00 PACU</b>				
Computers/printers/copiers	1,382	\$ 20.00	\$ 27,636	
Telecommunications				
Structured Cable				
Cable Tray				
Network Equipment				
DAS				

Centegra Hospital - Huntley

Description	Quantity	Unit Price	Total Cost	Comments
<b>12.00</b> Diagnostic Imaging				
Computers/printers/copiers	10,785	\$ 20.00	\$ 215,700	
Telecommunications				
Structured Cable				
Cable Tray				
Network Equipment				
DAS				
<b>13.00</b> Non-invasive Cardiology				
Computers/printers/copiers	7,830	\$ 20.00	\$ 156,600	
Telecommunications				
Structured Cable				
Cable Tray				
Network Equipment				
DAS				
<b>14.00</b> Inpatient Dialysis				
Computers/printers/copiers	1,904	\$ 20.00	\$ 38,080	
Telecommunications				
Structured Cable				
Cable Tray				
Network Equipment				
DAS				
<b>15.00</b> P7701				
Computers/printers/copiers	1,204	\$ 20.00	\$ 24,080	
Telecommunications				
Structured Cable				
Cable Tray				
Network Equipment				
DAS				

Centegra Hospital - Huntley

Description	Quantity	Unit Price	Total Cost	Comments
16.00 Laboratory / Morgue				
Computers/printers/copiers	3,720	\$ 20.00	\$ 74,400	
Telecommunications				
Structured Cable				
Cable Tray				
Network Equipment				
DAS				
17.00 Pharmacy				
Computers/printers/copiers	4,844	\$ 20.00	\$ 96,880	
Telecommunications				
Structured Cable				
Cable Tray				
Network Equipment				
DAS				
18.00 Respiratory Therapy				
Computers/printers/copiers	2,772	\$ 20.00	\$ 55,440	
Telecommunications				
Structured Cable				
Cable Tray				
Network Equipment				
DAS				
19.00 Pre-Admission Testing				
Computers/printers/copiers	1,428	\$ 20.00	\$ 28,560	
Telecommunications				
Structured Cable				
Cable Tray				
Network Equipment				
DAS				
20.00 Dietary				
Computers/printers/copiers	6,916	\$ 20.00	\$ 138,320	
Telecommunications				
Structured Cable				
Cable Tray				
Network Equipment				
DAS				
21.00 Central Sterile Processing				
Computers/printers/copiers	5,256	\$ 20.00	\$ 105,120	
Telecommunications				
Structured Cable				
Cable Tray				
Network Equipment				
DAS				

Supplies Clinical

\$ 3,782,388

Centgra Hospital - Huntley

Area	Description	Quantity	Unit Price	Total Cost	Comments
<b>Medical Equipment</b>					
<b>Non-Clinical Equipment</b>					
22.00	Administration	1	\$ 11,000	\$ 11,000	
	AV & Screens	1	\$ 6,000	\$ 6,000	
	Refrigerators & Misc	1	\$ 5,000	\$ 5,000	
23.00	Admitting & Patient Registration		\$ -	\$ -	Registration to move here
	Not used				
24.00	Facilities Management		\$ -	\$ -	No medical equipment needs
25.00	Case Management		\$ -	\$ -	No medical equipment needs
26.00	Central On-Call Beds & Televisions	1	\$ 12,000	\$ 12,000	
27.00	Conference/Education AV & Screens	1	\$ 50,000	\$ 50,000	
28.00	Elevators		\$ -	\$ -	No medical equipment needs
29.00	Family Support Refrigerators & Misc	1	\$ 25,000	\$ 25,000	
30.00	Housekeeping Cleaning Equipment	1	\$ 45,000	\$ 45,000	
31.00	Information Systems		\$ -	\$ -	No medical equipment needs
32.00	Gift Shop Cooler	1	\$ 10,000	\$ 10,000	
33.00	Lobby / Public Space Refrigerators & Misc	1	\$ 25,000	\$ 25,000	
34.00	Mail Room		\$ -	\$ -	No medical equipment needs

Centegra Hospital - Huntley

Item	Description	Quantity	Unit Price	Total Cost	Comments
<b>Medical Equipment</b>					
35.00	Materials Management/Dock Equipment	1	\$ 30,000	\$ 30,000	
36.00	Mechanical No medical equipment needs		\$ -	-	
37.00	Medical Records No medical equipment needs	1	\$ 10,000	\$ 10,000	
38.00	Biomedical Engineering Misc	1	\$ 30,000	\$ 30,000	
39.00	Pastoral Care No medical equipment needs		\$ -	-	
40.00	Physician Services No medical equipment needs		\$ -	-	
41.00	Quality Management / Infection Control No medical equipment needs		\$ -	-	
42.00	Servery & Dining Servery	1	\$ 650,000	\$ 650,000	
43.00	Security No medical equipment needs		\$ -	-	
44.00	Circulation Interdepartmental No medical equipment needs		\$ -	-	
45.00	Staff Support Services No medical equipment needs		\$ -	-	
46.00	Stairs No medical equipment needs		\$ -	-	
47.00	Volunteers No medical equipment needs		\$ -	-	
					<b>\$ 243,000</b>
					<b>\$ 650,000</b>

**Non Clinical Medical Equipment**  
Non Clinical Kitchen Equipment

Centegra Hospital - Huntley

Description	Quantity	Unit Price	Total Cost	Comments
<b>Non-Clinical</b>				
22.00 Administration Area Allocation Staff offices	9,734	\$ 11.79	\$ 114,764	
23.00 Admitting & Patient Registration Area Allocation Staff task chairs / workstations Lounge chairs / tables Staff offices Misc	2,412	\$ 3.93	\$ 9,481	
24.00 Facilities Management Area Allocation Staff task chairs / workstations	3,616	\$ 3.93	\$ 14,211	
25.00 Case Management Area Allocation Staff task chairs / workstations	1,768	\$ 3.93	\$ 6,948	
26.00 Central On-Call Area Allocation Staff task chairs / workstations	1,500	\$ 7.86	\$ 11,790	
27.00 Conference/Education Conference tables / chairs	10,535	\$ 15.72	\$ 165,610	
28.00 Elevators No furniture	7,918	\$ -	\$ -	
29.00 Family Support Area Allocation Lounge Furniture	18,482	\$ 7.86	\$ 145,269	
30.00 Housekeeping No furniture	3,275	\$ -	\$ -	
31.00 Information Systems Area Allocation Staff task chairs / workstations	6,962	\$ 3.93	\$ 27,361	
32.00 Gift Shop	1,163	\$ 3.93	\$ 4,571	
33.00 Lobby / Public Space Area Allocation Lounge Furniture	15,763	\$ 11.79	\$ 185,846	
34.00 Mail Room Area Allocation Displays	136	\$ 3.93	\$ 535	

Centegra Hospital - Huntley

Description	Quantity	Unit Price	Total Cost	Comments
<b>35.00</b>				
<b>Materials Management/Dock</b>				
Area Allocation	9,529	\$ 3.93	\$ 37,449	
Staff task chairs / workstations			\$ 37,449	
<b>36.00</b>				
<b>Mechanical</b>				
Area Allocation	65,000	\$ 0.49	\$ 31,931	
Staff task chairs / workstations			\$ 31,931	
<b>37.00</b>				
<b>Medical Records</b>				
Area Allocation	1,500	\$ 9.83	\$ 14,738	
Staff task chairs / workstations			\$ -	
<b>38.00</b>				
<b>Biomedical Engineering</b>				
Area Allocation	500	\$ 3.93	\$ 1,965	
Staff task chairs / workstations			\$ 1,965	
<b>39.00</b>				
<b>Pastoral Care</b>				
Area Allocation	1,020	\$ 7.86	\$ 8,017	
Chapel seating			\$ -	
<b>40.00</b>				
<b>Physician Services</b>				
Area Allocation	5,652	\$ 7.86	\$ 44,425	
Staff task chairs / workstations			\$ 44,425	
<b>41.00</b>				
<b>Quality Management / Infection Control</b>				
Area Allocation	1,013	\$ 3.93	\$ 3,981	
Staff task chairs / workstations			\$ 3,981	
<b>42.00</b>				
<b>Servery &amp; Dining</b>				
Area Allocation	6,604	\$ 15.72	\$ 103,815	
Dining chairs / tables			\$ 103,815	
<b>43.00</b>				
<b>Security</b>				
Area Allocation	348	\$ 7.86	\$ 2,735	
Staff task chairs / workstations			\$ 2,735	
<b>44.00</b>				
<b>Circulation Interdepartmental</b>				
Area Allocation	11,946	\$ 1.97	\$ 23,474	
Seating			\$ 23,474	
<b>45.00</b>				
<b>Staff Support Services</b>				
Area Allocation	2,386	\$ 7.86	\$ 18,754	
Lounge and conference			\$ 18,753.96	
<b>46.00</b>				
<b>Stairs</b>				
No need	5,808	\$ -	\$ -	
<b>47.00</b>				
<b>Volunteers</b>				
Area Allocation	420	\$ 7.86	\$ 3,301	
Lounge and conference			\$ 3,301	
<b>Staff Clinical Total</b>				<b>\$ 881,847</b>

Centegra Hospital - Huntley

	Description	Quantity	Unit Price	Total Cost	Comments
22.00	Administration Area Allocation Hardware / Cable / Network	9,734	\$ 20.00	\$ 194,680	
23.00	Admitting & Patient Registration Computers/printers/copiers Telecommunications Structured Cable Cable Tray Network Equipment DAS	2,412	\$ 20.00	\$ 48,248	
24.00	Facilities Management Area Allocation Hardware / Cable / Network	3,616	\$ 20.00	\$ 72,320	
25.00	Case Management Area Allocation Hardware / Cable / Network	1,768	\$ 20.00	\$ 35,360	
26.00	Central On-Call Area Allocation Hardware / Cable / Network	1,500	\$ 20.00	\$ 30,000	
27.00	Conference/Intuition Area Allocation Hardware / Cable / Network	10,535	\$ 20.00	\$ 210,700	
28.00	Elevators Area Allocation Hardware / Cable / Network	7,918	\$ 20.00	\$ 158,360	
29.00	Family Support Area Allocation Hardware / Cable / Network	18,482	\$ 20.00	\$ 369,640	
30.00	Housekeeping Area Allocation Hardware / Cable / Network	3,275	\$ 20.00	\$ 65,500	
31.00	Information Systems Area Allocation Hardware / Cable / Network	6,962	\$ 40.00	\$ 278,480	
32.00	Gift Shop Area Allocation Hardware / Cable / Network	1,163	\$ 20.00	\$ 23,260	
33.00	Lobby / Public Space Area Allocation Hardware / Cable / Network	15,763	\$ 20.00	\$ 315,260	
34.00	Mail Room Area Allocation Hardware / Cable / Network	156	\$ 20.00	\$ 3,120	

Centegra Hospital - Huntley

Description	Quantity	Unit Price	Total Cost	Comments
<b>35.00</b>				
<b>Materials Management/Deck</b>				
Area Allocation	9,529	\$ 20.00	\$ 190,580	
Hardware / Cable / Network			\$ -	
<b>36.00</b>				
<b>Mechanical</b>				
Area Allocation	65,000	\$ 20.00	\$ 1,300,000	
Hardware / Cable / Network			\$ -	
<b>37.00</b>				
<b>Medical Records</b>				
Area Allocation	1,500	\$ 20.00	\$ 30,000	
Hardware / Cable / Network			\$ -	
<b>38.00</b>				
<b>Biomedical Engineering</b>				
Area Allocation	500	\$ 20.00	\$ 10,000	
Hardware / Cable / Network			\$ -	
<b>39.00</b>				
<b>Pastoral Care</b>				
Area Allocation	1,020	\$ 20.00	\$ 20,400	
Hardware / Cable / Network			\$ -	
<b>40.00</b>				
<b>Physician Services</b>				
Area Allocation	5,652	\$ 20.00	\$ 113,040	
Hardware / Cable / Network			\$ -	
<b>41.00</b>				
<b>Quality Management / Infection Control</b>				
Area Allocation	1,013	\$ 20.00	\$ 20,260	
Hardware / Cable / Network			\$ -	
<b>42.00</b>				
<b>Servery &amp; Dining</b>				
Area Allocation	6,604	\$ 20.00	\$ 132,080	
Hardware / Cable / Network			\$ -	
<b>43.00</b>				
<b>Security</b>				
Area Allocation	348	\$ 20.00	\$ 6,960	
Hardware / Cable / Network			\$ -	
<b>44.00</b>				
<b>Circulation Interdepartmental</b>				
Area Allocation	11,946	\$ 20.00	\$ 238,920	
Hardware / Cable / Network			\$ -	
<b>45.00</b>				
<b>Staff Support Services</b>				
Area Allocation	2,386	\$ 20.00	\$ 47,720	
Hardware / Cable / Network			\$ -	
<b>46.00</b>				
<b>Stairs</b>				
Area Allocation	5,808	\$ 20.00	\$ 116,160	
Hardware / Cable / Network			\$ -	
<b>47.00</b>				
<b>Volunteers</b>				
Area Allocation	420	\$ 20.00	\$ 8,400	
Hardware / Cable / Network			\$ -	

Not Clinical Area

1,038,440

I.  
Project Status and Completion Schedules: Project Expenditures or Obligation

This Attachment is not applicable to this project because project obligation will occur after permit issuance.

I.  
Cost/Space Requirements

<u>Department</u>	<u>Cost (\$)</u>	<u>Departmental Gross Square Feet</u>		<u>Amount of Proposed Total Departmental Gross Square Feet That Is:</u>			
		<u>Existing</u>	<u>Upon Project Completion</u>	<u>New</u>	<u>Modernized</u>	<u>As is</u>	<u>Vacated Space</u>
<u>Reviewable (Clinical Service Areas)</u>							
Medical/Surgical Service	\$37,900,284	0	59,112	59,112	0	0	0
Intensive Care Service	\$4,026,364	0	5,415	5,415	0	0	0
Obstetric Service	\$8,471,028	0	13,071	13,071	0	0	0
Surgery	\$16,689,325	0	21,525	21,525	0	0	0
Post-Anesthesia Recovery	\$1,060,242	0	1,382	1,382	0	0	0
Surgical Prep/Stage II Recovery	\$8,521,667	0	12,717	12,717	0	0	0
Endoscopy	\$1,848,825	0	2,175	2,175	0	0	0
Emergency Department	\$6,684,372	0	10,431	10,431	0	0	0
Diagnostic Imaging	\$11,764,657	0	10,785	10,785	0	0	0
Labor-Delivery-Recovery Suite	\$6,067,482	0	9,445	9,445	0	0	0
C-Section Suite	\$2,971,541	0	4,026	4,026	0	0	0
Newborn Nurseries (Levels I and II)	\$2,197,745	0	3,167	3,167	0	0	0
Inpatient Physical Therapy/ Occupational Therapy	\$800,907	0	1,204	1,204	0	0	0
Non-Invasive Diagnostic Cardiology, Neurodiagnostics, Pulmonary Function Testing	\$5,724,625	0	7,830	7,830	0	0	0
Respiratory Therapy	\$1,828,297	0	2,772	2,772	0	0	0
Pre-Admission/ Pre-Procedure Testing	\$858,488	0	1,428	1,428	0	0	0
Inpatient Acute Dialysis	\$1,210,335	0	1,904	1,904	0	0	0
Clinical Laboratory/Morgue	\$2,728,126	0	3,720	3,720	0	0	0
Pharmacy	\$3,104,166	0	4,844	4,844	0	0	0
Central Sterile Processing and Distribution	\$3,747,986	0	5,256	5,256	0	0	0
Cafeteria (Food Services/Kitchen)	\$4,865,747	0	6,916	6,916	0	0	0
<b>TOTAL REVIEWABLE</b>	<b>\$133,072,209</b>	<b>0</b>	<b>189,125</b>	<b>189,125</b>	<b>0</b>	<b>0</b>	<b>0</b>

<u>Department</u>	<u>Cost (\$)</u>	<u>Existing</u>	<u>Upon Project Completi on</u>	<u>New</u>	<u>Modernized</u>	<u>As is</u>	<u>Vacated Space</u>
<u>NON-REVIEWABLE</u> (Non-Clinical Components):							
Admitting/Patient Registration	\$1,385,703	0	2,412	2,412	0	0	0
Administration	\$5,126,659	0	9,734	9,734	0	0	0
Social Services (Case Mgt.)	\$956,461	0	1,768	1,768	0	0	0
Quality Management/ Infection Control	\$524,257	0	1,013	1,013	0	0	0
Facilities Management	\$1,850,182	0	3,616	3,616	0	0	0
Central On-Call Rooms	\$850,775	0	1,500	1,500	0	0	0
Conference Rooms/Education	\$6,030,946	0	10,535	10,535	0	0	0
Family Support Services	\$10,856,438	0	18,482	18,482	0	0	0
Housekeeping	\$1,631,575	0	3,275	3,275	0	0	0
Information Systems	\$4,030,466	0	6,962	6,962	0	0	0
Gift Shop	\$652,978	0	1,163	1,163	0	0	0
Mail Room	\$77,990	0	156	156	0	0	0
Materials Management/ Loading Dock	\$4,794,427	0	9,529	9,529	0	0	0
Mechanical Space/Equipment	\$28,504,585	0	65,000	65,000	0	0	0
Medical Records	\$786,668	0	1,500	1,500	0	0	0
Server and Dining Room	\$4,042,090	0	6,604	6,604	0	0	0
Biomedical Engineering	\$301,013	0	500	500	0	0	0
Pastoral Care	\$537,939	0	1,020	1,020	0	0	0
Physician Services	\$2,947,674	0	5,652	5,652	0	0	0
Security	\$183,532	0	348	348	0	0	0
Staff Support Services	\$1,384,276	0	2,386	2,386	0	0	0
Volunteers	\$216,579	0	420	420	0	0	0
Entrances/Lobbies/ Public Space	\$8,771,456	0	15,763	15,763	0	0	0
Interdepartmental Circulation	\$6,929,069	0	11,946	11,946	0	0	0
Stairs	\$2,880,416	0	5,808	5,808	0	0	0
Elevator Shafts/Elevators	<u>\$3,833,989</u>	<u>0</u>	<u>7,918</u>	<u>7,918</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL NON-REVIEWABLE	\$100,088,143	0	195,010	195	0	0	0
PROJECT TOTAL	\$233,160,352	0	384,135	384,135	0	0	0

III.  
Criterion 1110.230 - Background of Applicant

1. Centegra Health System is the sole corporate member of Centegra Hospital - Huntley.

Centegra Health System currently operates 3 hospitals:

Centegra Northern Illinois Medical Center d/b/a Centegra Hospital - McHenry;

Centegra Memorial Medical Center d/b/a Centegra Hospital - Woodstock;  
and

Centegra Memorial Medical Center, South Street d/b/a Centegra Specialty Hospital - Woodstock, South Street.

Each of these hospitals operates under an "assumed name" (often known as a "d/b/a" for "doing business as"), as noted in the October 6, 2008, letter to the Health Facilities Planning Board, which stated that these names became effective on August 21, 2008, having been registered with the Illinois Secretary of State. That letter is found on Page 3 of this Attachment.

Centegra Health System is also a member of Algonquin Road Ambulatory Surgery Center, L.L.C., which is an Illinois health care facility, as defined under the Illinois Health Facilities Planning Act (20 ILCS 3960/3).

The identification numbers of each of these health care facilities is shown below, along with their names and locations.

<u>Name and Location of Facility</u>	<u>Identification Numbers</u>
Centegra Hospital - McHenry McHenry	Illinois License ID #0003889 Joint Commission ID #7375
Centegra Hospital - Woodstock Woodstock	Illinois License ID #0004606 Joint Commission ID #7447
Centegra Specialty Hospital - Woodstock, South Street Woodstock	Illinois License ID #0001503 Joint Commission ID #7447
Algonquin Road Surgery Center, L.L.C., Lake in the Hills	Illinois License ID #7002579 Joint Commission ID #366641

Proof of the current licensure and accreditation of each of the facilities identified above will be found beginning on Page 4 of this Attachment.

- 2, 3. A letter from Centegra Health System certifying that its affiliated health care facilities have not had any adverse action taken against them during the past three years and authorizing the Illinois Health Facilities and Services Review Board and Illinois Department of Public Health to access any documents necessary to verify the information submitted in response to this subsection will be found on the final page of this Attachment.
4. This item is not applicable to this application.

Health Facilities Planning Board  
525 West Jefferson Street, 2nd Floor  
Springfield, Illinois 62761

**Re: Centegra Northern Illinois Medical Center and  
Centegra Memorial Medical Center – Adoption of Assumed Names**

Date: October 6, 2008

To Whom It May Concern:

Please be advised that effective August 21<sup>st</sup>, 2008 the above named organizations have adopted assumed names by appropriately filing form NFP 104.15/20, *Application to Adopt an Assumed Name* with the Illinois Secretary of State. Pursuant to that filing, the assumed names for these organizations are as follows:

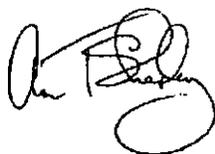
- ◆ Centegra Memorial Medical Center d/b/a **Centegra Hospital – Woodstock**
- ◆ Centegra Memorial Medical Center, South Street d/b/a **Centegra Specialty Hospital – Woodstock, South Street**
- ◆ Centegra Northern Illinois Medical Center d/b/a **Centegra Hospital – McHenry**

These assumed names were adopted for the purpose of making it more convenient for our community to identify Centegra facilities. The adoption of the assumed names does not reflect any changes to the ownership, control or operation of these facilities.

Please update your records to reflect these changes and forward electronic confirmation in PDF form to [namechange@centegra.com](mailto:namechange@centegra.com)

If you have any questions, please do not hesitate to call me at 815-788-5837.

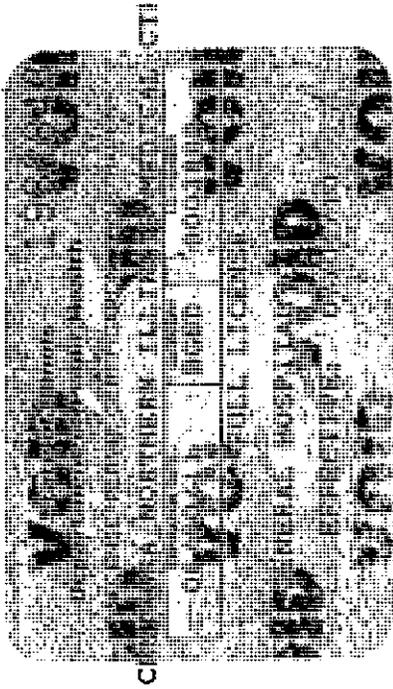
Regards,



Aaron T. Shepley, General Counsel  
Centegra Health System

← DISPLAY THIS PART IN A CONSPICUOUS PLACE

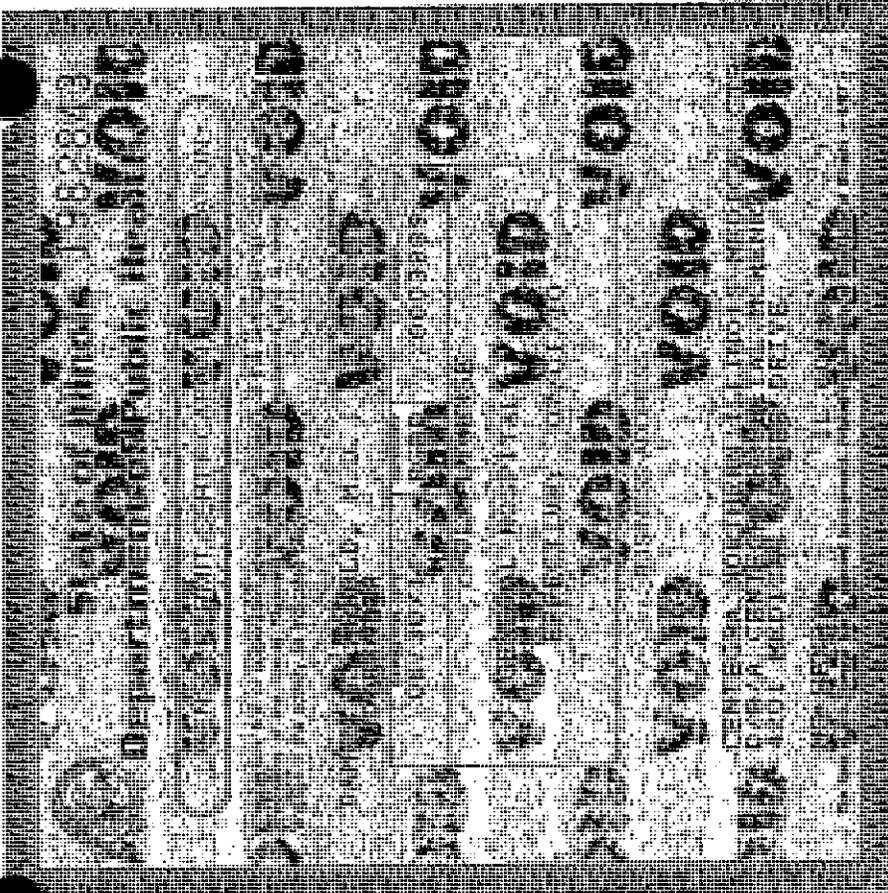
REMOVE THIS CARD TO CARRY AS AN IDENTIFICATION



05/08/10

CENTEGRA NORTHERN ILLINOIS MED. CTR  
D/B/A CENTEGRA HOSPITAL MCHENRY  
385 MILLENIUM DRIVE  
CRYSTAL LAKE IL 60012

FEE RECEIPT NO.





December 1, 2009

Michael S. Eesley  
President and CEO  
Centegra Hospital - McHenry  
4201 Medical Center Drive  
McHenry, IL 60050

Joint Commission ID #: 7375  
Program: Hospital Accreditation  
Accreditation Activity: Measure of Success  
Accreditation Activity Completed: 12/01/2009

Dear Mr. Eesley:

The Joint Commission would like to thank your organization for participating in the accreditation process. This process is designed to help your organization continuously provide safe, high-quality care, treatment, and services by identifying opportunities for improvement in your processes and helping you follow through on and implement these improvements. We encourage you to use the accreditation process as a continuous standards compliance and operational improvement tool.

The Joint Commission is granting your organization an accreditation decision of Accredited for all services surveyed under the applicable manual(s) noted below:

Comprehensive Accreditation Manual for Hospitals

This accreditation cycle is effective beginning May 09, 2009. The Joint Commission reserves the right to shorten or lengthen the duration of the cycle; however, the certificate and cycle are customarily valid for up to 39 months.

Please visit [Quality Check®](#) on The Joint Commission web site for updated information related to your accreditation decision.

We encourage you to share this accreditation decision with your organization's appropriate staff, leadership, and governing body. You may also want to inform the Centers for Medicare and Medicaid Services (CMS), state or regional regulatory services, and the public you serve of your organization's accreditation decision.

Please be assured that The Joint Commission will keep the report confidential, except as required by law. To ensure that The Joint Commission's information about your organization is always accurate and current, our policy requires that you inform us of any changes in the name or ownership of your organization or the health care services you provide.

Sincerely,

*Ann Scott Blouin RN, PhD*

Ann Scott Blouin, RN, Ph.D.  
Executive Vice President  
Accreditation and Certification Operations



August 3, 2009

Michael S. Eesley  
President and CEO  
Northern Illinois Medical Center  
4201 Medical Center Drive  
McHenry, IL 60050

Joint Commission ID #: 7375  
Program: Home Care Accreditation  
Accreditation Activity: 60-day Evidence of  
Standards Compliance  
Accreditation Activity Completed: 08/03/2009

Dear Mr. Eesley:

The Joint Commission would like to thank your organization for participating in the accreditation process. This process is designed to help your organization continuously provide safe, high-quality care, treatment, and services by identifying opportunities for improvement in your processes and helping you follow through on and implement these improvements. We encourage you to use the accreditation process as a continuous standards compliance and operational improvement tool.

The Joint Commission is granting your organization an accreditation decision of Accredited for all services surveyed under the applicable manual(s) noted below:

Comprehensive Accreditation Manual for Home Care

This accreditation cycle is effective beginning May 09, 2009. The Joint Commission reserves the right to shorten or lengthen the duration of the cycle; however, the certificate and cycle are customarily valid for up to 39 months.

Please visit [Quality Check®](#) on The Joint Commission web site for updated information related to your accreditation decision.

We encourage you to share this accreditation decision with your organization's appropriate staff, leadership, and governing body. You may also want to inform the Centers for Medicare and Medicaid Services (CMS), state or regional regulatory services, and the public you serve of your organization's accreditation decision.

Please be assured that The Joint Commission will keep the report confidential, except as required by law. To ensure that The Joint Commission's information about your organization is always accurate and current, our policy requires that you inform us of any changes in the name or ownership of your organization or the health care services you provide.

Sincerely,

A handwritten signature in black ink that reads "Ann Scott Blouin RN, Ph.D.".

Ann Scott Blouin, RN, Ph.D.  
Executive Vice President  
Accreditation and Certification Operations

← DISPLAY THIS PART IN A CONSPICUOUS PLACE

REMOVE THIS CARD TO CARRY AS AN IDENTIFICATION



State of Illinois  
Department of Public Health

1982854

LICENSE PERMIT REGISTRATION

CENTEGRA MEMORIAL MEDICAL CENTER

EXPIRATION DATE	CATEGORY	ID NUMBER
06/30/14	BGBD	0004506

FULL LICENSE

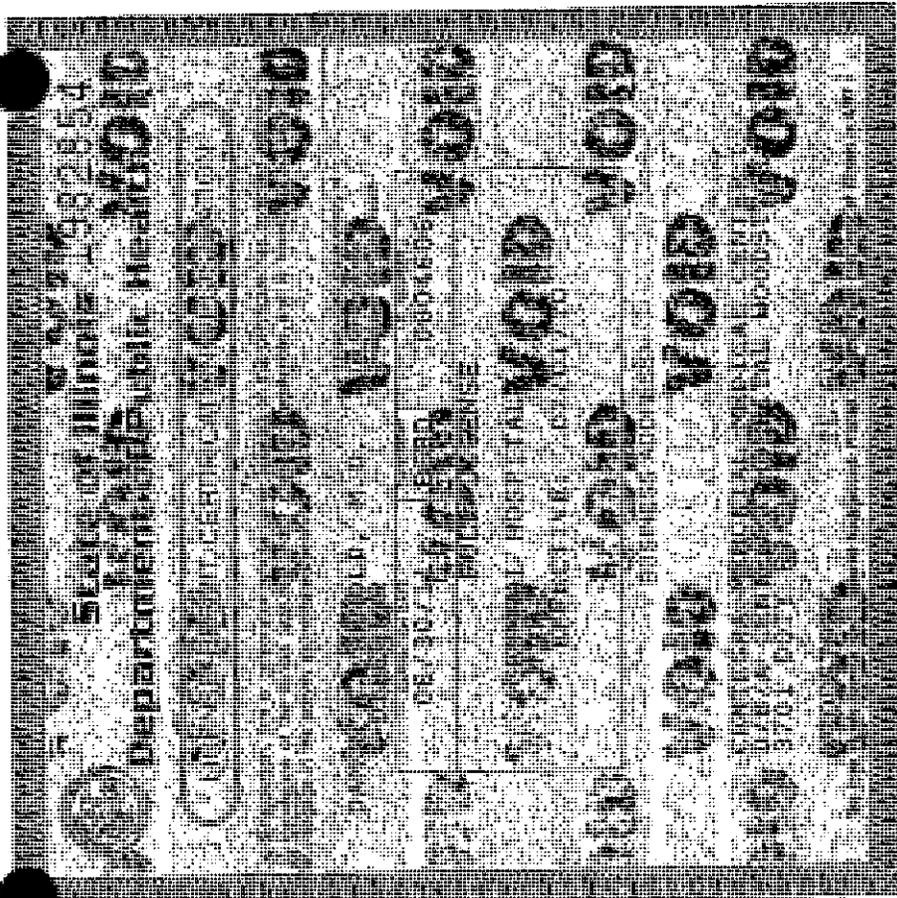
GENERAL HOSPITALS

EFFECTIVE 07/01/10

05/08/10

CENTEGRA MEMORIAL MEDICAL CENTER  
D/B/A CENTEGRA HOSPITAL WOODSTOCK  
385 MILLENIUM DRIVE IL 60012  
CRYSTAL LAKE

FEE RECEIPT NO.





November 13, 2009

Michael Eesley  
President and CEO  
Centegra Hospital Woodstock  
3701 Doty Road  
Woodstock, IL 60098

Joint Commission ID #: 7447  
Program: Hospital Accreditation  
Accreditation Activity: 60-day Evidence of  
Standards Compliance  
Accreditation Activity Completed: 11/13/2009

Dear Mr. Eesley:

The Joint Commission would like to thank your organization for participating in the accreditation process. This process is designed to help your organization continuously provide safe, high-quality care, treatment, and services by identifying opportunities for improvement in your processes and helping you follow through on and implement these improvements. We encourage you to use the accreditation process as a continuous standards compliance and operational improvement tool.

The Joint Commission is granting your organization an accreditation decision of Accredited for all services surveyed under the applicable manual(s) noted below:

Comprehensive Accreditation Manual for Hospitals

This accreditation cycle is effective beginning May 16, 2009. The Joint Commission reserves the right to shorten or lengthen the duration of the cycle; however, the certificate and cycle are customarily valid for up to 39 months.

Please visit [Quality Check®](#) on The Joint Commission web site for updated information related to your accreditation decision.

We encourage you to share this accreditation decision with your organization's appropriate staff, leadership, and governing body. You may also want to inform the Centers for Medicare and Medicaid Services (CMS), state or regional regulatory services, and the public you serve of your organization's accreditation decision.

Please be assured that The Joint Commission will keep the report confidential, except as required by law. To ensure that The Joint Commission's information about your organization is always accurate and current, our policy requires that you inform us of any changes in the name or ownership of your organization or the health care services you provide.

Sincerely,

Ann Scott Blouin, RN, Ph.D.  
Executive Vice President  
Accreditation and Certification Operations

DISPLAY THIS PART IN A  
CONSPICUOUS PLACE

REMOVE THIS CARD TO CARRY AS AN  
IDENTIFICATION

State of Illinois  
Department of Public Health  
1992  
LICENSE PERMIT CERTIFICATION REGISTRATION  
CENTEGRA MEMORIAL MED. CTR. SOUTH STREI

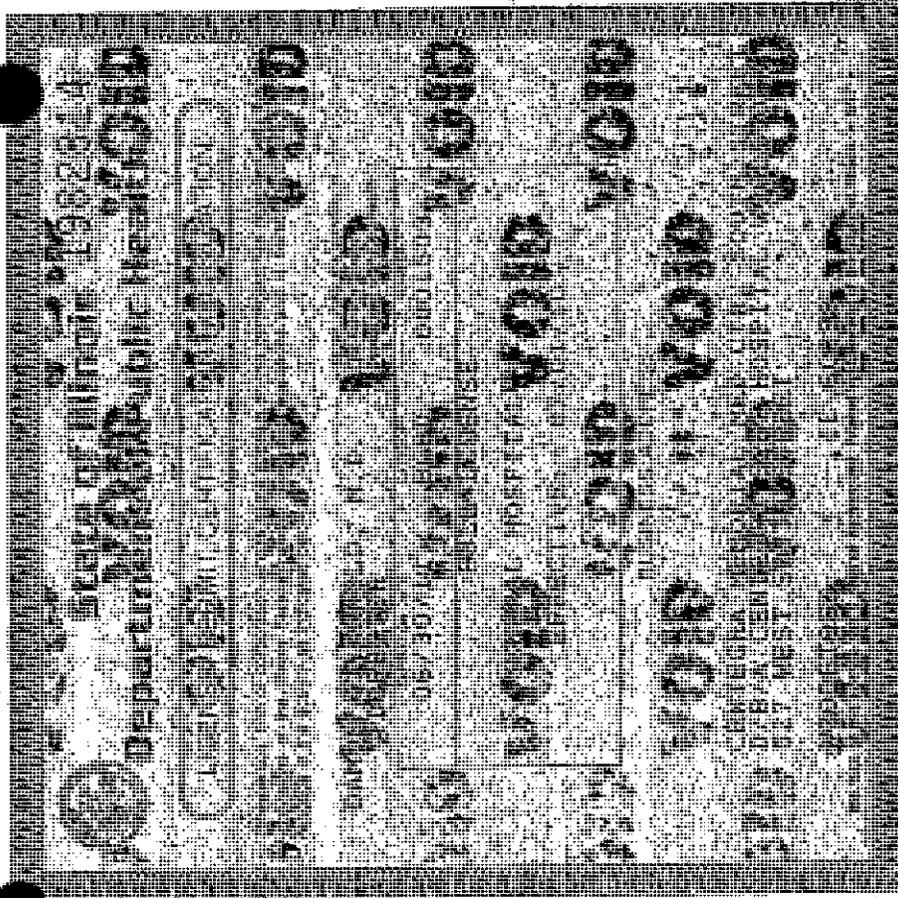
EXPIRATION DATE 06/30/11	CATEGORY BGBD	ID NUMBER 6001503
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FULL LICENSE  
GENERAL HOSPITAL  
EFFECTIVE: 07/01/00

05/08/10

CENTEGRA MEMORIAL MED CTR, SOUTH  
D/B/A CENTEGRA SPEC HOSPITAL WOOD  
388 MILLENIUM DRIVE  
CRYSTAL LAKE IL 60012

FEE RECEIPT NO.





October 6, 2008

Michael Eesley  
President and CEO  
Memorial Medical Center  
3701 Doty Road  
Woodstock, IL 60098

Joint Commission ID #: 7447  
Accreditation Activity: Evidence of Standards  
Compliance  
Accreditation Activity Completed: 10/6/2008

Dear Mr. Eesley:

The Joint Commission would like to thank your organization for participating in the accreditation process. This process is designed to help your organization continuously provide safe, high-quality care, treatment, and services by identifying opportunities for improvement in your processes and helping you follow through on and implement these improvements. We encourage you to use the accreditation process as a continuous standards compliance and operational improvement tool.

The Joint Commission is granting your organization an accreditation decision of Accredited for all services surveyed under the applicable manual(s) noted below:

Comprehensive Accreditation Manual for Behavioral Health Care

This accreditation cycle is effective beginning October 03, 2008. The Joint Commission reserves the right to shorten or lengthen the duration of the cycle; however, the certificate and cycle are customarily valid for up to 39 months.

Please visit [Quality Check®](#) on the Joint Commission web site for updated information related to your accreditation decision.

We encourage you to share this accreditation decision with your organization's appropriate staff, leadership, and governing body. You may also want to inform the Centers for Medicare and Medicaid Services (CMS), state or regional regulatory services, and the public you serve of your organization's accreditation decision.

Please be assured that the Joint Commission will keep the report confidential, except as required by law. To ensure that the Joint Commission's information about your organization is always accurate and current, our policy requires that you inform us of any changes in the name or ownership of your organization or the health care services you provide.

Sincerely,

Ann Scott Blouin, RN, Ph.D.  
Executive Vice President  
Accreditation and Certification Operations



November 13, 2009

Michael Eesley  
President and CEO  
Centegra Hospital Woodstock  
3701 Doty Road  
Woodstock, IL 60098

Joint Commission ID #: 7447  
Program: Medicare/Medicaid Certification-  
Based Long Term Care Accreditation  
Accreditation Activity: 60-day Evidence of  
Standards Compliance  
Accreditation Activity Completed: 11/13/2009

Dear Mr. Eesley:

The Joint Commission would like to thank your organization for participating in the accreditation process. This process is designed to help your organization continuously provide safe, high-quality care, treatment, and services by identifying opportunities for improvement in your processes and helping you follow through on and implement these improvements. We encourage you to use the accreditation process as a continuous standards compliance and operational improvement tool.

The Joint Commission is granting your organization an accreditation decision of Accredited for all services surveyed under the applicable manual(s) noted below:

Medicare/Medicaid Certification-Based Long Term Care Accreditation

This accreditation cycle is effective beginning May 16, 2009. The Joint Commission reserves the right to shorten or lengthen the duration of the cycle; however, the certificate and cycle are customarily valid for up to 39 months.

Please visit [Quality Check®](#) on The Joint Commission web site for updated information related to your accreditation decision.

We encourage you to share this accreditation decision with your organization's appropriate staff, leadership, and governing body. You may also want to inform the Centers for Medicare and Medicaid Services (CMS), state or regional regulatory services, and the public you serve of your organization's accreditation decision.

Please be assured that The Joint Commission will keep the report confidential, except as required by law. To ensure that The Joint Commission's information about your organization is always accurate and current, our policy requires that you inform us of any changes in the name or ownership of your organization or the health care services you provide.

Sincerely,

*Ann Scott Blouin RN, PhD*

Ann Scott Blouin, RN, Ph.D.  
Executive Vice President  
Accreditation and Certification Operations

DISPLAY THIS PART IN A CONSPICUOUS PLACE

REMOVE THIS CARD TO CARRY AS AN IDENTIFICATION

State of Illinois  
 Department of Public Health  
 LICENSE PERMIT, CERTIFICATION, REGISTRATION

**2011492**

EXPIRES DATE	CATEGORY	TO NUMBER
12/15/11	H68D	7002579

ALGONQUIN ROAD SURGERY CENTER, LLC  
 FULL LICENSE  
 AMBUL SURGICAL TREAT CNTR  
 EFFECTIVE: 12/16/10

11/20/10  
 ALGONQUIN ROAD SURGERY CTR LLC  
 2550 ALGONQUIN ROAD  
 LAKE IN THE HILL IL 60156  
 FEE RECEIPT NO. 22544

State of Illinois 2011492  
 Department of Public Health

LICENSE PERMIT, CERTIFICATION, REGISTRATION

The person, firm, or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

GAMON, T. ARNOLD, M.D.  
 Issued under the authority of  
 The State of Illinois  
 Department of Public Health

EXPIRES DATE	CATEGORY	TO NUMBER
12/15/11	H68D	7002579

FULL LICENSE  
 AMBUL SURGICAL TREAT CNTR  
 EFFECTIVE: 12/16/10

BUSINESS ADDRESS

ALGONQUIN ROAD SURGERY CENTER, LLC  
 2550 ALGONQUIN ROAD

LAKE IN THE HILL, IL 60156  
 The face of this license has a colored background printed by authority of the State of Illinois - 4/07



April 15, 2009

Joint Commission ID: 366641  
CCN: 14C0001096  
Program: Ambulatory Surgical Center  
Accreditation Expiration Date: May 14, 2012

Dana McGrath  
Administrator  
Algonquin Road Surgery Center  
2550 West Algonquin Road  
Lake In The Hills, Illinois 60156

Dear Ms. McGrath:

This letter confirms that your February 12-13, 2009 unannounced Ambulatory Surgical Center survey was conducted for the purposes of assessing compliance with the Medicare conditions for ambulatory surgery centers through The Joint Commission's deemed status survey process. The services at your ambulatory surgery center were found to be in substantial compliance with the Medicare Conditions.

The Joint Commission is also recommending your organization for Medicare certification. Please note that the Centers for Medicare and Medicaid Services (CMS) Regional Office (RO) makes the final determination regarding your Medicare participation and the effective date of participation in accordance with the regulations at 42 CFR 489.13.

This recommendation also applies to the following location(s):  
Algonquin Road Surgery Center, 2550 West Algonquin Road, Lake in the Hills, Illinois

We direct your attention to some important Joint Commission policies. First, your Medicare report is publicly accessible as required by the Joint Commission's agreement with the Centers for Medicare and Medicaid Services. Second, Joint Commission policy requires that you inform us of any changes in the name or ownership of your organization, or health care services you provide.

Sincerely,

*Ann Scott Biouin RN, Ph.D*

Ann Scott Biouin, RN, Ph.D.  
Executive Vice President  
Accreditation and Certification Operations

cc: CMS/Central Office/Survey & Certification Group/Division of Acute Care Services  
CMS/Regional Office V/Survey and Certification Staff



Algonquin Road Surgery Center  
2550 West Algonquin Road  
Lake In The Hills, IL 60156

**Organization Identification Number: 366641**

**Evidence of Standards Compliance (60 Day) Submitted: 3/5/2009**

**Program(s)**

Ambulatory Health Care Accreditation

**Executive Summary**

**Ambulatory Health Care Accreditation :** As a result of the accreditation activity conducted on the above date(s), there were no Requirements for Improvement identified.

If you have any questions, please do not hesitate to contact your Account Representative.

Thank you for collaborating with The Joint Commission to improve the safety and quality of care provided to patients.

**The Joint Commission  
Summary of Compliance**

<b>Program</b>	<b>Standard</b>	<b>Level of Compliance</b>
AHC	MM.08.01.01	Compliant

November 30, 2010

Mr. Michael Constantino  
Project Review Supervisor  
Illinois Health Facilities and Services Review Board  
525 W. Jefferson  
Second Floor  
Springfield, Illinois 62702

Dear Mr. Constantino:

Centegra Hospital - Huntley is a proposed hospital in Huntley that will be owned and operated by Centegra Hospital - Huntley. The sole corporate member of Centegra Hospital - Huntley will be Centegra Health System.

Centegra Health System also owns more than 5% or is the sole corporate member of the following health care facilities, as defined under the Illinois Health Facilities Planning Act (20 ILCS 3960/3).

Northern Illinois Medical Center d/b/a Centegra Hospital - McHenry  
(Licensed Name: Centegra Northern Illinois Medical Center)

Memorial Medical Center - Woodstock d/b/a Centegra Hospital - Woodstock  
(Licensed Name: Centegra Memorial Medical Center)

Memorial Medical Center - Woodstock d/b/a Centegra Specialty Hospital -  
Woodstock South Street  
(Licensed Name: Centegra Memorial Medical Center, South Street)

Algonquin Road Surgery Center

We hereby certify that there has been no adverse action taken against any health care facility owned and/or operated by Centegra Health System during the three years prior to the filing of this application.

Centegra Health System hereby authorizes the Illinois Health Facilities and Services Review Board and the Illinois Department of Public Health (IDPH) to access any documents necessary to verify the information submitted, including but not limited to the following: official records of IDPH or other state agencies; the licensing or certification records of other states, where applicable; and the records of nationally recognized accreditation organizations, as identified in the requirements specified in 77 Ill. Adm. Code 1110.230.a).

Sincerely,

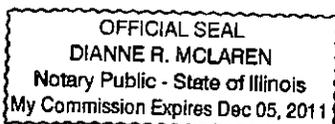
Michael S. Eesley  
Chief Executive Officer  
Centegra Health System

Sincerely,

Jason Sciarro  
President and Chief Operating Officer  
Centegra Health System

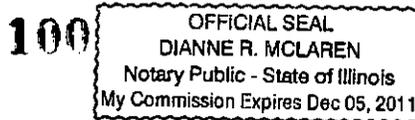
SUBSCRIBED and SWORN to before me  
this 30<sup>th</sup> day of November, 2010.

Notary Public



SUBSCRIBED and SWORN to before me  
this 30<sup>th</sup> day of November, 2010.

Notary Public



III.  
 Criterion 1110.230 - Purpose of Project

1. This project will improve the health care and result in increased well-being of the market area population by establishing a new hospital in southern McHenry County (Planning Area A-10). The proposed hospital, which will be named Centegra Hospital - Huntley, will meet the existing bed need, as determined by the Illinois Department of Public Health (IDPH) and Illinois Health Facilities and Services Review Board (IHFSRB), as well as the anticipated increase in Medical-Surgical/Pediatric bed need that will occur between 2015 and the hospital's second full year of operation (July, 2017 - June, 2018).

a. The most recent published bed need for the Medical-Surgical/Pediatric, Intensive Care, and Obstetric Categories of Service is shown below.

Category of Service	Bed Need for 2015 as of December 17, 2010	Centegra Hospital - Huntley Proposed Beds
Medical-Surgical/ Pediatric Beds	69	100
Intensive Care Beds	8	8
Obstetric Beds	21	20
Total, These Categories of Service	98	128

Source of Bed Need: Illinois Department of Public Health, Revised Bed Need Determinations," December 17, 2010.

b. Since December 17, 2010, additional bed need in the Medical-Surgical/Pediatric and Obstetric Categories of Service has been created in Planning Area A-10 because Memorial Medical Center - Woodstock d/b/a Centegra Hospital - Woodstock and Centegra Health System abandoned their CON permit for Project #08-002 in favor of pursuing the project that is the subject of this certificate of need (CON) application.

The reasons for the abandonment of Project #08-002 are explained more fully in the December 20, 2010, letter from Michael S. Eesley, Chief Executive Officer of Centegra Health System, to Dale Galassie, Chairman

of the IHFSRB, which is appended and is found on Pages 13 through 16 of this Attachment.

As a result of the abandonment of Project #08-002, the number of existing Beds in Planning Area A-10 is decreased by the 14 Medical-Surgical beds and 6 Obstetric beds that were approved in the abandoned project, and the Bed Need for Planning Area A-10 is increased by the same numbers.

Category of Service	Bed Need for 2015 now that #08-002 is abandoned	Centegra Hospital - Huntley Proposed Beds
Medical-Surgical/ Pediatric Beds	83	100
Intensive Care Beds	8	8
Obstetric Beds	27	20
Total, These Categories of Service	118	128

In addition, projected population growth figures that are presented later in this Attachment and in Attachment 20 of this application demonstrate that additional Medical-Surgical/Pediatric beds will be needed by Centegra Hospital - Huntley's second complete year of operation because the "Calculated (Adjusted Beds) Needed" will increase from 289 shown in the December 17, 2010, "Revised Bed Need Determinations" to 310 in mid-2018.

The existing Medical-Surgical/Pediatric Bed Need, as shown in the most recent IDPH "Revised Bed Need Determinations" reveals that Planning Area A-10 has the highest Medical-Surgical/Pediatric Bed Need of all 40 IHFSRB-designated planning areas in Illinois. The chart found on Page 17 of this Attachment documents that only 3 of the 40 planning areas have any Medical-Surgical/Pediatric Bed Need and that the Medical-Surgical/Pediatric Bed Need in Planning Area A-10 is the highest by far of those 3. The other 37 planning areas in the State have all been determined to have excess Medical-Surgical/Pediatric beds according to the "Revised Bed Need Determinations."

- c. The site of the proposed Centegra Hospital - Huntley is located only 2 miles from the Kane County border. In fact, the zip code in which the

proposed hospital site is located (60142, Huntley) includes portions of both McHenry and Kane Counties.

It is important to note that the planning area identified as having the second highest Medical-Surgical/Pediatric Bed Need in the most recent IDPH "Revised Bed Need Determinations" for Medical-Surgical/Pediatric Bed Need is Planning Area A-11 (North Kane County), the planning area that is adjacent to Planning Area A-10 and which begins just 2 miles from the site of Centegra Hospital - Huntley. The most recent revision of the "Bed Need Determinations" identified a Bed Need in Planning Area A-11 for 61 additional Medical-Surgical/Pediatric Beds.

Portions of Planning Area A-11 are within the market area identified for Centegra Hospital - Huntley, as will be discussed later in this Attachment and in Attachments 20 and 37.

The Medical-Surgical/Pediatric Bed Need identified for Planning Areas A-10 (83 beds) and A-11 (61 beds) represent 144 beds, which is nearly all of the 171 Medical-Surgical/Pediatric beds needed in the entire State of Illinois in 2015.

- d. Planning Area A-10 is also the planning area with the highest net out-migration of Medical-Surgical/Pediatric patient days of all 14 IHFSRB-designated planning areas in the Chicago metropolitan area, as identified in the most recent published IHFSRB/IDPH "Inventory of Health Care Facilities and Services and Need Determinations" (May 28, 2008).

The chart found on Page 18 of this Attachment documents that the ratio of Net Out-Migration of Medical-Surgical/Pediatric Patient Days to Total Medical-Surgical/Pediatric Days in Planning Area A-10 was 80%, while the next highest ratio was 67% for Planning Area A-13 (this percentage does not reflect the impact of the opening of the new Adventist Bolingbrook Hospital on out-migration since the hospital opened after 2005). The third highest ratio was 48% in Planning Area A-11 (North Kane County), while the percentage was 23% or less in the balance of the planning areas, with 7 of the 14 planning areas experiencing net in-migration.

- e. The 2009 occupancy rate for the Medical-Surgical and Pediatrics Categories of Service varied widely among the 40 planning areas in the State of Illinois, ranging from 81.9% to 22.9% occupancy of authorized beds in a planning area.

During 2009, Planning Area A-10 experienced a 77.6% occupancy rate of its currently authorized Medical/Surgical/Pediatric beds, reflecting the

reduction of 14 Medical/Surgical authorized beds due to the abandonment of Project 08-002. The occupancy level experienced in this Planning Area was the second highest occupancy level experienced in any of the 40 planning areas in Illinois.

A chart comparing the occupancy levels experienced in the Medical-Surgical/Pediatric Categories of Service in all the planning areas is found on Page 19 of this Attachment, followed by a description of the methodology used to determine the occupancy percentage in Planning Area A-10 and in the other planning areas, which appears on Page 20 of this Attachment.

- f. The second full year of operation of Centegra Hospital - Huntley will not occur until mid-2018, which is several years later than the most recent Adjusted Bed Need figures promulgated by the IHFSRB and the IDPH in May, 2008. Since the 2015 Population Projections used in calculating those Adjusted Bed Need figures were prepared by the Illinois Department of Commerce and Economic Opportunity, which has also issued Population Projections by County for 2020, it was possible to determine Calculated (Adjusted) Bed Need for the Medical-Surgical/Pediatric Service for mid-2018 using the same figures and formula that were used to calculate 2015 Calculated (Adjusted) Bed Need.

The methodology that was used to determine Calculated (Adjusted) Medical-Surgical/Pediatric Bed Need for mid-2018 is described in Attachment 20. A chart illustrating that methodology is found on Pages 21 and 22 of this Attachment. This methodology concluded that, based upon the same methodology used by the IHFSRB and IDPH in calculating the Bed Need Determination for the Medical-Surgical/Pediatric Categories of Service in their April, 2010, revision, Planning Area A-10 will have a Medical-Surgical/Pediatric Bed Need of 104 by mid-2018 based upon population projections promulgated by the Illinois Department of Commerce and Economic Development.

Because the current Calculated (Adjusted) Bed Need for the Intensive Care and Obstetric Categories of Service is sufficient to justify the number of beds proposed for those Categories of Service for Centegra Hospital - Huntley, the projected Calculated (Adjusted) Bed Need for those Categories of Service for mid-2018 was not determined. However, because the Illinois Department of Commerce and Economic Opportunity population projections indicate that the population in McHenry County will increase by more than 8% from 2015 to 2020, which is an annual population increase of 1.6%, the Calculated (Adjusted) Bed Need for those Categories of Service will also increase beyond the figures shown in the "Bed Need Determinations" for 2015.

A summary of the Bed Need Determinations and the number of beds proposed for Centegra Hospital - Huntley is found below.

Category of Service	Bed Need now that #08-002 is abandoned, using the methodology described earlier in Attachment 12	Centegra Hospital - Huntley Proposed Beds
Medical-Surgical/ Pediatric Beds	104* as of mid-2018	100
Intensive Care Beds	8 as of 2015	8
Obstetric Beds	27* as of 2015	20
Total, These Categories of Service	139	128

\*The Bed Need Determinations for Medical-Surgical/Pediatric and Obstetric Beds reflect the abandonment of Project #08-002, which included 14 Medical-Surgical beds and 6 Obstetric beds

In view of the current Bed Need in Planning Area A-10, as determined by the IHFSRB and IDPH, the projected Bed Need that will result from population growth in Planning Area A-10 from 2015 to mid-2018 (the second full year of operation of Centegra Hospital - Huntley), and similar population growth projected by mid-2018 in the target market area for this project, the establishment of Centegra Hospital - Huntley will improve the health care and well-being of residents of Planning Area A-10, the State-defined planning area in which the hospital will be located, and of the target market area for this project.

As described later in this Attachment, this project will impact those areas within Planning Area A-10 and the target market area in Kane County that are identified by the federal government (Health Resources and Services Administration of the U.S. Department of Health and Human Services) as Medically Underserved Areas and Health Manpower Shortage Areas.

As discussed earlier in this Attachment, the proposed site for Centegra Hospital - Huntley is located 2 miles from the Kane County border, and portions of Planning Area A-11, Northern Kane County, lie within the market area for this project. Planning Area A-10 has the largest Medical-Surgical/Pediatric bed need

in the State of Illinois, while Planning Area A-11 has the second largest Medical-Surgical/Pediatric bed need in the State. Planning Area A-10 has the highest ratio of net out-migration of Medical-Surgical/Pediatric patients as a percentage of total Medical-Surgical/Pediatric patient days in the State, while Planning Area A-11 has the third highest such ratio.

The market area for this project includes the 16 zip codes which are located in McHenry County and in adjacent towns in neighboring Kane, Lake, Cook, and DeKalb Counties.

Because the proposed site for Centegra Hospital - Huntley is located 2 miles from the Kane County border and many of the zip codes in southern McHenry County cross county lines, including as many as 4 counties within a single zip code, the market area includes portions of several counties adjacent to McHenry County.

The only categories of service that are included in this project are the following.

- Medical-Surgical Category of Service
- Intensive Care Category of Service
- Obstetric Category of Service

The project also includes the following clinical service areas that are not categories of service.

- Surgery
- Post-Anesthesia Recovery (PACU, Recovery)
- Surgical Prep (for both A.M. Admits and Same-Day Surgery Patients) and Stage II Recovery
- Endoscopy
- Emergency Department
- Diagnostic Imaging (Radiology, Radiography/Fluoroscopy, Ultrasound, CT Scanning, MRI Scanning, Nuclear Medicine)
- Labor/Delivery/Recovery Suite
- C-Section Suite
- Newborn Nurseries (Level I, Level II)
- Inpatient Physical Therapy/Occupational Therapy
- Non-Invasive Diagnostic Cardiology } Since these Services share support
- Neurodiagnostics } area , they are shown as 1 dept.
- Pulmonary Function Testing } for square footage purposes
- Respiratory Therapy
- Pre-Admission Testing
- Inpatient Acute Dialysis
- Clinical Laboratory, including Morgue
- Pharmacy
- Central Sterile Processing/Distribution
- Dietary

2. Centegra Hospital - Huntley's market area consists of the following zip codes, most of which are located in McHenry County, the planning area in which the project is located.

- Primary Service Area:

<u>Zip Code</u>	<u>Key Town</u>
60142	Huntley
60156	Lake in the Hills
60014	Crystal Lake
60102	Algonquin
60152	Marengo
60140	Hampshire
60110	Carpentersville
60180	Union
60118	Dundee
60136	Gilberts

- Secondary Service Area:

<u>Zip Code</u>	<u>Key Town</u>
60098	Woodstock
60013	Cary
60012	Crystal Lake
60039	Crystal Lake
60010	Barrington
60021	Fox River Grove

A map of the market area is found on Page 23 of this Attachment.

This market area is predominantly located within Planning Area A-10, and much of the market area is within the service area for Centegra Health System's primary care facilities in Huntley, which are located in the Centegra Ambulatory Center in Huntley that is on the same site as the proposed hospital.

Construction of the Centegra Ambulatory Center in Huntley (originally named the Ambulatory Care Mall) was approved under Permit Number 07-015, which was granted a CON permit in June, 2007.

The market area selected for Centegra Hospital - Huntley is largely consistent with patient origin that has been experienced at the Centegra Ambulatory Center in Huntley. Patient origin for the Immediate Care Center and primary care physicians' offices at the Centegra Ambulatory Center in Huntley during FY10 (July 1, 2009 through June 30, 2010), which is provided below, indicates that the

following zip codes constituted the market area for these programs, accounting for more than 85% of the patients seen at these facilities.

PATIENT ORIGIN FOR PATIENTS AT FACILITIES IN  
CENTEGRA AMBULATORY CENTER, HUNTLEY

<u>Zip Code</u>	<u>Key Town</u>	<u>July 1, 2009 - June 30, 2010</u>	
		<u>% of Total Patients</u>	
		<u>Immed. Care Center</u>	<u>Physician Offices</u>
60142	Huntley*	42.6%	34.3%
60156	Lake in the Hills*	20.4%	12.9%
60014	Crystal Lake*	8.2%	8.5%
60102	Algonquin*	6.2%	7.1%
60152	Marengo*	3.9%	4.9%
60098	Woodstock**	3.3%	8.7%
60140	Hampshire*	2.9%	2.8%
60110	Carpentersville*	1.3%	1.9%
60180	Union*	1.2%	1.1%
60118	Dundee*	0.7%	1.1%
60013	Cary**	0.6%	1.4%
60136	Gilberts*	0.5%	0.7%
60012	Crystal Lake**	0.2%	1.0%
		<u>91.9%</u>	<u>86.5%</u>

\*This zip code is in Centegra Hospital - Huntley's Primary Service Area

\*\*This zip code is in Centegra Hospital - Huntley's Secondary Service Area

Source: Centegra Health System Data System

The high utilization of the services at the Centegra Ambulatory Center in Huntley demonstrates that a majority of patients projected to be seen at Centegra Hospital - Huntley are residents of the market area. Furthermore, a majority of the patients at Centegra Hospital - Huntley are projected to be residents of Planning Area A-10, McHenry County, which is the planning area in which the project is located.

The market area selected for Centegra Hospital - Huntley is unique in patient origin in comparison to the inpatient origin that has been experienced at the other general acute care hospitals located in McHenry County: Centegra Hospital - McHenry; Centegra Hospital - Woodstock; and Mercy Harvard Memorial Hospital, which is a Critical Access Hospital.

Patient origin for each of these existing hospitals for the recent 12-month period of July 1, 2009 through June 30, 2010 is found on Pages 24 through 26 of this Attachment.

3. This project proposes to address the following health care issues.

- This project proposes to address existing bed need in the Medical-Surgical, Intensive Care, and Obstetric Categories of Service. This bed need is identified in the "Revised Bed Need Determinations" to the "Inventory of Health Care Facilities and Services and Need Determinations" promulgated by the IDPH.

As of December 17, 2010, there was Bed Need for 69 Medical-Surgical/Pediatric beds, 8 Intensive Care beds, and 21 Obstetric beds in Planning Area A-10 (McHenry County), the planning area in which Centegra Hospital - Huntley will be located.

This Bed Need increased by 14 Medical-Surgical beds and 6 Obstetric beds when Memorial Medical Center - Woodstock d/b/a Centegra Hospital - Woodstock and Centegra Health System abandoned Project #08-002 by letter on December 20, 2010, in order to pursue the project that is the subject of this CON application. A copy of the letter from Michael S. Eesley, Chief Executive Officer of Centegra Health System, to Dale Galassie, Chairman of the IHFSRB, that notified the IHFSRB of the abandonment of this project is appended and is found on Pages 13 through 16 of this Attachment.

- This project proposes to address rapid population growth in both the state-designated planning area (Planning Area A-10) and in the project market area, as documented in Attachment 20.

The second full year of operation of Centegra Hospital - Huntley is planned to be its FY2018 (July 1, 2017 - June 30, 2018). Although the "Inventory of Health Care Facilities and Services and Need Determinations," issued by the IHFSRB and IDPH on May 28, 2008, and recalculated following a revision to the CON Rules in April, 2010, includes a 10-year population projection from 2005 to 2015, this population projection does not extend to the time when Centegra Hospital - Huntley will be operational.

The Illinois Department of Commerce and Economic Opportunity has issued population projections at 5-year intervals from 2000 through 2030 ([www.ildceo.net/dceo/Bureaus/Fact\\_Figures/Population\\_Projections](http://www.ildceo.net/dceo/Bureaus/Fact_Figures/Population_Projections)). Using these population projections on an age-adjusted basis and interpolating the projected population growth from 2015 to 2020, it was

possible to replicate the IHFSRB/IDPH Bed Need Determinations and establish a Calculated (Adjusted) Bed Need for the Medical-Surgical/Pediatrics Category of Service in Planning Area A-10 in mid-2018.

The Adjusted Beds Needed will be 310, an increase of 21 beds in this Category of Service from the projection for 2015. Based on the 206 Medical-Surgical/Pediatric beds that currently exist in Planning Area A-10 after the abandonment of Project #08-002 is recorded, an additional 104 Medical-Surgical/Pediatric beds will be needed by mid-2018.

The methodology used to determine this Adjusted Bed Need figure is found in Attachment 20, and a chart showing that methodology is found on Pages 21 and 22 of this Attachment.

- This project proposes to address the health needs of a population that is aging in both the state-designated planning area (Planning Area A-10) and in the project market area, as documented in the charts that are appended to this Attachment.
- This project proposes to address the health needs of the residents of those areas within Planning Area A-10 and in the target market area in Kane County that are identified by the federal government (Health Resources and Services Administration of the U.S. Department of Health and Human Services) as Medically Underserved Areas and Health Manpower Shortage Areas.

A discussion of those census tracts and townships is found in Item 5 below. Identification of the Medically Underserved Population, Medically Underserved Area, and Health Manpower Shortage Areas as well as maps of the designated census tracts is found on Pages 27 through 32 of this Attachment.

4. The sources of information provided as documentation are the following:
  - a. Illinois Department of Public Health, "Revised Bed Need Determinations" to the "Inventory of Health Care Facilities and Services and Need Determinations," November 19, 2010;
  - b. Illinois Department of Public Health, "Inventory of Health Care Facilities and Services and Need Determinations," May 28, 2008;
  - c. Illinois Department of Public Health, "Inventory of Health Care Facilities and Services and Need Determinations" for the Medical-Surgical/Pediatrics Categories of Service, as revised April, 2010;

- d. Illinois Department of Commerce and Economic Opportunity, "Population Projections," [www.ildceo.net/dceo/Bureaus/Facts\\_Figures/Population\\_Projections/](http://www.ildceo.net/dceo/Bureaus/Facts_Figures/Population_Projections/);
  - e. Internal Centegra Health System data systems
  - f. Claritas via Intellimed
  - g. COMPdata via Intellimed
  - h. Analyses of Claritas via Intellimed and COMPdata via Intellimed, as performed by Deloitte Financial Advisory Services, LLP
  - i. Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS), Medically Underserved Areas and Populations by State and County, <http://muafind.hrsa.gov/index.aspx> for McHenry and Kane Counties;
  - j. Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS), Health Professional Shortage Areas by State and County, <http://hpsafind.hrsa.gov/HPSASearch.aspx> for Kane County;
5. This project will address and improve the health care and well-being of residents of the market area identified for Centegra Hospital - Huntley, a majority of the population of which resides in Planning Area A-10. This improvement in the health care and well-being of the market area will occur because Centegra Hospital - Huntley will provide needed medical services, as identified in the IHFSRB/IDPH "Bed Need Determinations."

This project will impact those areas within Planning Area A-10 and in the target market area in Kane County that are identified by the federal government (Health Resources and Services Administration of the U.S. Department of Health and Human Services) as Medically Underserved Areas and Health Manpower Shortage Areas.

- Within Planning Area A-10 (McHenry County), there are 3 census tracts that have been designated by the Governor as having a federally-designated Medically Underserved Population, a designation that is made to document unusual local conditions and barriers to accessing personal health services.
- There is a census tract in Carpentersville, which is within the primary service area for Centegra Hospital - Huntley, that is a federally-designated Medically Underserved Area.

- There are 4 townships in the Hampshire Service Area, which is within the primary service area for Centegra Hospital - Huntley, that have been identified as federally-designated Health Professional Shortage Areas for primary medical care.

The identification of these areas and their locations on census tract maps are found on Pages 27 through 32 of this Attachment.

This project will have a positive impact on those patients residing in these areas who require inpatient care in the Medical-Surgical, Intensive Care, and Obstetric Categories of Service that will be established in Centegra Hospital - Huntley.

6. Centegra Health System's goal in establishing Centegra Hospital - Huntley is to be able to provide quality inpatient care to residents of its market area, a majority of whom reside in Planning Area A-10, a planning area that has bed need for these services.

**By Email Transmission and Overnight Delivery**

December 20, 2010

Mr. Dale Galassie, Chair  
Illinois Health Facilities and Services Review Board  
525 West Jefferson Street, 2nd Floor  
Springfield, IL 62761

RE: Abandonment of Project No. 08-002, Centegra Memorial Medical Center d/b/a Centegra Hospital – Woodstock

Dear Chairman Galassie:

This letter is to provide notice to the Illinois Health Facilities and Services Review Board (“Review Board”) that the applicant Centegra Health System (“Centegra”) is, for the reasons stated below, abandoning the permit issued in Project No. 08-002, Centegra Memorial Medical Center d/b/a Centegra Hospital – Woodstock. The project was a major modernization that included an increase of 14 Medical/Surgical beds and 6 Obstetric beds. With the abandonment of the project, these beds may be removed from the Inventory of existing beds for Planning Area A-10. A copy of the Permit Letter for Project No. 08-002 is attached.

Centegra decided to abandon this project after a reassessment of its strategic master facility plan. Since the issuance of the permit, we have kept the Review Board apprised of the status of our reassessment. In our initial Annual Progress Report dated July 31, 2009, we advised that we were considering the need to request an extension of the time to obligate the project. In November 2009, following the tumultuous year caused by the global financial market crises and economic downturn, we submitted a Request for Extension of the Obligation Period for Project No. 08-002. That request, dated November 11, 2009, noted that the hospital community as a whole was finding construction loans difficult to obtain even for A-rated organizations. In addition, as with most other hospital providers at the time, Centegra re-evaluated its major capital expenditure program during that unpredictable and volatile economic period. We advised the Review Board that we had begun to reassess our strategic master facility plan and felt this was necessary in light of changing market conditions, the uncertain financial situation, and in anticipation of health care reform. We further advised the Review Board that, in the event there was an alteration in the strategic master facility plan, Centegra would petition the Review Board for an alteration to Project No. 08-002.

In our most recent Annual Progress Report for this project, which was submitted on August 4, 2010, we advised the Review Board that we were continuing to evaluate our options presented in connection with the reassessment of our strategic master facility plan and would be making the decision whether to progress with the current plan, to petition the Review Board for an alteration to Project No. 08-002, or take other appropriate action.

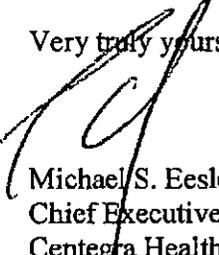
With the revitalization of the financial markets and increasingly favorable expectations for the economy, we also observed the growing need for inpatient services in our area, especially in the southern portion of McHenry County which has no existing inpatient hospital facilities. As a result of the reassessment of the strategic master facility plan, Centegra determined that a more judicious use of resources to meet the long term needs of the Planning Area can be best achieved by the establishment of a new hospital in the southern portion of McHenry County. Consequently, Centegra has decided to abandon Project No. 08-002 and to file an application for permit with the Review Board for the establishment of a new hospital in Huntley.

As stated in our 2010 Annual Progress Report, the total amount of project costs expended on Project 08-002 is \$1,649,776 which consisted primarily of preplanning costs, architectural/engineering fees and other consulting fees. This amount is substantially below the capital expenditure minimum threshold and would not have independently required a permit. A significant amount of the capital costs and work expended on Project No. 08-002 were useful and translated to the proposed hospital project in Huntley.

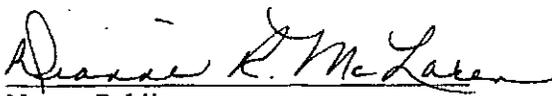
We had a technical assistance meeting with Mr. Michael Constantino on December 14, 2010 to request the procedure to appropriately abandon Project 08-002 and he advised the submission of a letter. Please accept this letter as both notice of the abandonment of Project No. 08-002 and as the applicant's documentation of the technical assistance meeting with Mr. Constantino. Present at the meeting on behalf of Centegra were myself, Mr. Aaron Shepley, Senior Vice President, Ms. Susan Milford, Senior Vice President of Marketing, Strategic Planning & Wellness, Ms. Hadley Streng, Director of Planning and Business Development, and Ms. Andrea Rozran, Diversified Health Resources, our CON consultant. We thank Mr. Constantino for his technical assistance on this project.

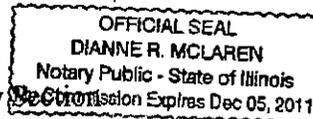
To conclude, the applicant Centegra Health System is abandoning Project No. 08-002, Centegra Memorial Medical Center d/b/a Centegra Hospital – Woodstock. The 14 medical/surgical beds and 6 Obstetric beds associated with the project may be removed from the Inventory for Planning Area A-10. Thank you for your attention to this matter.

Very truly yours,

  
Michael S. Eesley  
Chief Executive Officer  
Centegra Health System

SUBSCRIBED and SWORN to before me  
this 20<sup>th</sup> day of December 2010.

  
Notary Public



cc: Mr. Michael Constantino, Supervisor, Project Review  
Ms. Andrea Rozran, Diversified Health Resources



STATE OF ILLINOIS  
**HEALTH FACILITIES PLANNING BOARD**

525 WEST JEFFERSON STREET • SPRINGFIELD, ILLINOIS 62761 • (217)782-3516

July 3, 2008

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Rowena Wermes, Director of Planning  
Centegra Health System  
385 Millennium Drive  
Crystal Lake, Illinois 60012

RE: **PERMIT**: Illinois Health Facilities Planning Act 20 ILCS 3960

Dear Ms. Wermes:

On July 1, 2008, the Illinois Health Facilities Planning Board approved the application for permit for the referenced project based upon the project's substantial conformance with the applicable standards and criteria of Part 1110 and 1120. In arriving at a decision, the State Board considered the findings contained in the State Agency Report, the application material, and any testimony made before the State Board.

- **PROJECT**: #08-002 - Memorial Medical Center - Woodstock New  
The permit holders are approved for a 2-story addition in 77,478/GSF of new space and to modernize 19,998/GSF of space located at Memorial Medical Center-Woodstock, 3701 Doty Road, Woodstock, Illinois 60098. In addition the permit holders are approved to increase the number of medical surgical (M/S) beds by 14 M/S beds for a total of 74 M/S beds, and increase the number of obstetric beds by 6 obstetric beds for a total of 20 obstetric beds.
- **PERMIT HOLDER**: Centegra Health System, 385 Millennium Drive, Crystal Lake, Illinois 60012, Memorial Medical Center-Woodstock, 3701 Doty Road, Woodstock, Illinois 60098
- **PERMIT AMOUNT**: \$52,201,702
- **PROJECT OBLIGATED BY**: January 1, 2010
- **PROJECT COMPLETION DATE**: May 31, 2012

This permit is valid only for the defined construction or modification, site, amount and the named permit holder and is not transferable or assignable.

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OFFICE OF THE EXECUTIVE SECRETARY

In accordance with the Planning Act, the permit is valid until such time as the project has been completed, provided that all post permit requirements have been fulfilled, pursuant to the requirements of 77 Ill. Adm. Code 1130. The permit holder is responsible for complying with the following requirements in order to maintain a valid permit. Failure to comply with the requirements may result in expiration of the permit or in State Board action to revoke the permit.

1. OBLIGATION-PART 1130.720

The project must be obligated prior to the Project Obligation Date, unless the permit holder obtains an "Extension of the Obligation Period" as provided in 77 Ill. Adm. Code 1130.730.

2. ANNUAL PROGRESS REPORT-PART 1130.760

An annual progress report must be submitted to IDPH every 12-month from the permit issuance date until such time as the project is completed.

3. PROJECT COMPLETION REQUIREMENTS-PART 1130.770

The permit holder must submit a written notice of project completion as defined in Section 1130.140. Each permit holder shall notify HFPB within 30 days following the project completion date and provide supporting documentation within 90 days following the completion date and must contain the information required by Section 1130.770.

This permit does not exempt the project or permit holder from licensing and certification requirements, including approval of applicable architectural plans and specifications prior to construction. Should you have any questions regarding the permit requirements, please contact Donald Jones.

Sincerely,



Jeffrey S. Mark  
Executive Secretary

**IDPH BED NEED DETERMINATIONS**  
**Medical-Surgical/Pediatric Bed Need: All Planning Areas**

<b>Planning Area</b>	<b>Bed Need</b>	<b>Bed Excess</b>
A-010	83*	0
A-011	61	0
A-013	27	0
E-002	0	6
D-005	0	16
B-004	0	19
F-006	0	25
F-002	0	33
C-004	0	36
E-003	0	43
B-003	0	48
F-005	0	48
E-004	0	50
F-004	0	54
A-005	0	55
D-003	0	56
B-002	0	59
D-002	0	71
F-003	0	75
C-003	0	85
A-014	0	97
F-007	0	105
C-002	0	114
E-005	0	114
A-008	0	124
A-012	0	137
A-009	0	144
C-005	0	150
D-001	0	158
E-001	0	197
C-001	0	205
D-004	0	225
A-007	0	258
B-001	0	264
A-003	0	349
A-006	0	479
A-004	0	503
F-001	0	527
A-002	0	544
A-001	0	763

\* Includes 14 Beds from abandonment of Project #08-002

Source: IDPH Revised Bed Need Determinations (December 17, 2010)  
as modified by abandonment of Project #08-002

**NET OUT-MIGRATION**  
**Medical-Surgical/ Pediatrics Categories of Service**  
**Planning Areas A-01 through A-14**

Planning Area	Total Med-Surg/Peds Patient Days 2005	Net Out-Migration Days*	Net Out-Migration as Percentage of Total Patient Days
A-010	52,852	42,223	80%
A-013	148,212	99,840	67%**
A-011	77,392	36,995	48%
A-003	376,796	86,753	23%
A-009	194,786	21,554	11%
A-008	183,554	16,202	9%
A-004	601,954	32,505	5%
A-005	288,430	-6,460	-2%
A-014	56,866	-1,803	-3%
A-006	254,345	-15,403	-6%
A-012	82,166	-9,695	-12%
A-001	581,324	-109,187	-19%
A-007	303,579	-62,250	-21%
A-002	451,921	-165,896	-37%

\*Net Migration times 4.757 Average Length of Stay as per IHFSRB/IDPH Inventory

\*\*Does not include impact of new Adventist Bolingbrook Hospital on Out-Migration

Source: IHFSRB/IDPH Inventory of Health Care Facilities and Services  
and Need Determinations (May 28, 2008)

**CON OCCUPANCY RATES**  
**Medical-Surgical/Pediatric Beds: All Planning Areas**

PLANNING AREA	CON OCCUPANCY CY2009
A-005	81.9%
<b>A-010</b>	<b>77.6%*</b>
A-007	74.5%
A-002	73.2%
F-006	68.4%
A-013	63.2%
D-001	61.8%
A-008	61.0%
A-009	60.8%
A-011	60.8%
A-012	60.6%
B-004	60.5%
C-001	60.1%
A-001	59.2%
F-002	57.9%
A-004	56.9%
E-001	55.6%
D-005	55.2%
D-002	54.9%
A-003	54.6%
B-003	54.5%
B-001	54.4%
A-006	52.8%
A-014	51.8%
F-007	49.2%
F-004	46.2%
E-005	45.6%
C-003	45.4%
C-005	44.6%
F-001	41.8%
B-002	39.7%
D-003	39.4%
F-003	39.4%
F-005	37.9%
C-002	37.8%
C-004	37.0%
D-004	35.3%
E-004	35.2%
E-002	26.8%
E-003	22.9%

\*CON Occupancy adjusted up from 72.7% after factoring in reduction of 14 M/S beds from A-10 due to Abandonment of Project #08-002

**METHODOLOGY FOR CALCULATING CON OCCUPANCY FOR PLANNING AREA**

**A. Calculation from IDPH Hospital Data Summary by Planning Area A-10**

	<b>Authorized CON Beds 12/31/2009</b>	<b>Inpatient Days</b>	<b>Observation Days</b>	<b>Total Patient Days</b>	<b>CON Occupancy CY2009</b>
<b>Medical-Surgical</b>	<b>220</b>	<b>53,214</b>	<b>5,136</b>	<b>58,350</b>	<b>72.7%</b>

**Note: CON Occupancy is calculated by dividing Total Days  
by the product of 365 days multiplied by Authorized CON Beds**

**B. CON Occupancy adjusted by reduction of 14 Medical/Surgical beds  
due to abandonment of Project # 08-002**

	<b>Authorized CON Beds after Abandonment of Project 08-002</b>	<b>Inpatient Days</b>	<b>Observation Days</b>	<b>Total Patient Days</b>	<b>CON Occupancy CY2009</b>
<b>Medical-Surgical</b>	<b>206</b>	<b>53,214</b>	<b>5,136</b>	<b>58,350</b>	<b>77.6%</b>

**BED NEED DETERMINATION FOR PLANNING AREA A-10 (McHENRY COUNTY)  
FOR THE MEDICAL-SURGICAL AND PEDIATRICS CATEGORIES OF SERVICE  
FOR CENTEGRA HOSPITAL - HUNTLEY'S SECOND FULL YEAR OF OPERATION**

Based Upon Determination Issued by Illinois Health Facilities Planning Board and  
Illinois Department of Public Health, May 28, 2008, Revised April, 2010

	<u>2005 Population Estimate</u>	<u>Use Rates</u>	<u>2015 Population Projection</u>	<u>Projected Days</u>
0-14 Years Old	75,990	0.0203	80,770	1,638
15-44 Years Old	133,560	0.0661	157,340	10,392
45-64 Years Old	74,070	0.1872	99,280	18,584
65-74 Years Old	12,470	0.6885	25,340	17,445
75-up Years Old	<u>10,590</u>	1.7648	<u>14,580</u>	<u>25,731</u>
Total Population	306,680		377,310	73,790

	<u>2010 Population Estimate</u>	<u>Use Rates<sup>2</sup></u>	<u>FY18 Population Projection<sup>3</sup></u>	<u>Projected Days</u>
0-14 Years Old	76,444	0.0203	83,783	1,701
15-44 Years Old	142,144	0.0661	160,365	10,600
45-64 Years Old	88,034	0.1872	103,203	19,320
65-74 Years Old	18,314	0.6885	28,603	19,693
75-up Years Old	<u>12,098</u>	1.7648	<u>16,669</u>	<u>29,417</u>
Total Population	337,034		392,623	80,731

Out-Migration: 11,091  
In-Migration: 2,215  
Net Migration: 8,876

Average Length of Stay: 4.757

Migration Days: 42,223  
Adjustment Factor: 0.50  
Migration Adjustment: 21,112

Total Projected Days (see above): 80,731  
+ Migration Adjustment: 21,112  
Adjusted Days 101,843

Adjusted Days 101,843  
+ Days in Year (2018) + 365  
= Adjusted Average Daily Census 279

Calculated (Adjusted) Average Daily Census + Occupancy Target <sup>1</sup>	279 <u>+ 90%</u>
Calculated (Adjusted) Beds Needed FY18	310
Existing Beds as of December 17, 2010	220
- 14 Medical-Surgical Beds Abandoned as a result of Abandoning Project #08-002 on December 20, 2010	<u>- 14</u>
Existing Medical-Surgical Beds in Planning Area A-10 as of the abandonment of Project #08-002	206
Calculated (Adjusted) Beds Needed FY18	310
- Existing Beds as of the abandonment of Project #08-002 (Dec. 20, 2010)	<u>- 206</u>
Beds Needed after the abandonment of Project #08-002 on Dec. 20, 2010	104

<sup>1</sup>The Need Determinations formula states that, if there are 200 or more beds in the Planning Area, the Occupancy Target is 90%

<sup>2</sup>This calculation of Bed Need uses the same use rates as used by the Illinois Health Facilities Planning Board and IDPH in their May 28, 2008, Bed Need Determination, which was revised April, 2010

<sup>3</sup>The difference between the 2015 Population Projections and 2020 Projections was divided in half to secure the Population Projection for midway between 2015 and 2020. Centegra Hospital - Huntley's second full fiscal year of operation will be its FY18, which is July 1, 2017 - June 30, 2018.

Note: Migration Figures and Adjustments used were the same as those used in the May 28, 2008, and April, 2010, Bed Need Determinations

Source of 2005 Population, Population Projections for 2010, 2015, 2020:  
Illinois Department of Commerce and Economic Opportunity, "Population Projections,"



**CENTEGRA HOSPITAL - McHENRY**  
**INPATIENT ORIGIN JULY 1, 2009 - JUNE 30, 2010**  
**ALL DISCHARGES EXCLUDING NEWBORNS AND NEONATES**

<u>Zip Code</u>	<u>Community</u>	<u>Discharges</u>	<u>% of Total Discharges</u>	<u>% of Cumulative Discharges</u>
60050	McHenry	2,640	24.7%	24.7%
60051	McHenry	1,437	13.5%	38.2%
60014	Crystal Lake	1,160	10.9%	49.1%
60097	Wonder Lake	659	6.2%	55.2%
60020	Fox Lake	513	4.8%	60.0%
60098	Woodstock	465	4.4%	64.4%
60081	Spring Grove	430	4.0%	68.4%
60012	Crystal Lake	347	3.3%	71.7%
60041	Ingleside, Volo	285	2.7%	74.3%
60013	Cary	262	2.5%	76.8%
60073	Round Lake	218	2.0%	78.8%
60071	Richmond	217	2.0%	80.9%
60002	Antioch	188	1.8%	82.6%
60156	Lake in the Hills	183	1.7%	84.4%
60042	Island Lake	139	1.3%	85.7%
60033	Harvard	123	1.2%	86.8%
60102	Algonquin	122	1.1%	88.0%
60142	Huntley	105	1.0%	88.9%
TOTAL, THESE ZIP CODES		9,493		88.9%
Zip Codes under 1% of Discharges		1,181	11.1%	
TOTAL DISCHARGES		10,674		100.00%

**CENTEGRA HOSPITAL - WOODSTOCK**  
**INPATIENT ORIGIN JULY 1, 2009 - JUNE 30, 2010**  
**ALL DISCHARGES EXCLUDING NEWBORNS AND NEONATES**

<u>Zip Code</u>	<u>Community</u>	<u>Discharges</u>	<u>% of Total Discharges</u>	<u>% of Cumulative Discharges</u>
60098	Woodstock	2,216	28.5%	28.5%
60014	Crystal Lake	1,286	16.5%	45.0%
60152	Marengo	608	7.8%	52.8%
60142	Huntley	567	7.3%	60.1%
60033	Harvard	558	7.2%	67.3%
60050	McHenry	325	4.2%	71.5%
60097	Wonder Lake	298	3.8%	75.3%
60156	Lake in the Hills	288	3.7%	79.0%
60051	McHenry	196	2.5%	81.5%
60012	Crystal Lake	153	2.0%	83.5%
60013	Cary	117	1.5%	85.0%
60034	Hebron	106	1.4%	86.4%
60102	Algonquin	100	1.3%	87.7%
TOTAL, THESE ZIP CODES		6,818		87.7%
Zip Codes under 1% of Discharges		959	12.3%	
TOTAL DISCHARGES		7,777		100.00%

Source: COMPdata via Intellimed

**MERCY HARVARD MEMORIAL HOSPITAL**  
**INPATIENT ORIGIN JULY 1, 2009 - JUNE 30, 2010**  
**ALL DISCHARGES EXCLUDING NEWBORNS AND NEONATES**

<u>Zip Code</u>	<u>Community</u>	<u>Discharges</u>	<u>% of Total Discharges</u>	<u>% of Cumulative Discharges</u>
60033	Harvard	331	54.98%	54.98%
60098	Woodstock	33	5.48%	60.46%
61012	Capron	29	4.82%	65.28%
61109	Rockford	16	2.66%	68.59%
53585	Sharon, Wisconsin	15	2.49%	71.08%
60034	Hebron	14	2.32%	73.40%
53184	Walworth, Wisconsin	14	2.32%	75.72%
60152	Marengo	12	2.00	77.72%
53115	Delavan, Wisconsin	12	2.00%	79.72%
TOTAL, THESE ZIP CODES		476		79.07%
Zip Codes under 1% of Discharges		126	20.93%	
TOTAL DISCHARGES		602		100.00%

Source: COMPdata via Intellimed



U.S. Department of Health and Human Services  
 Health Resources and Services Administration



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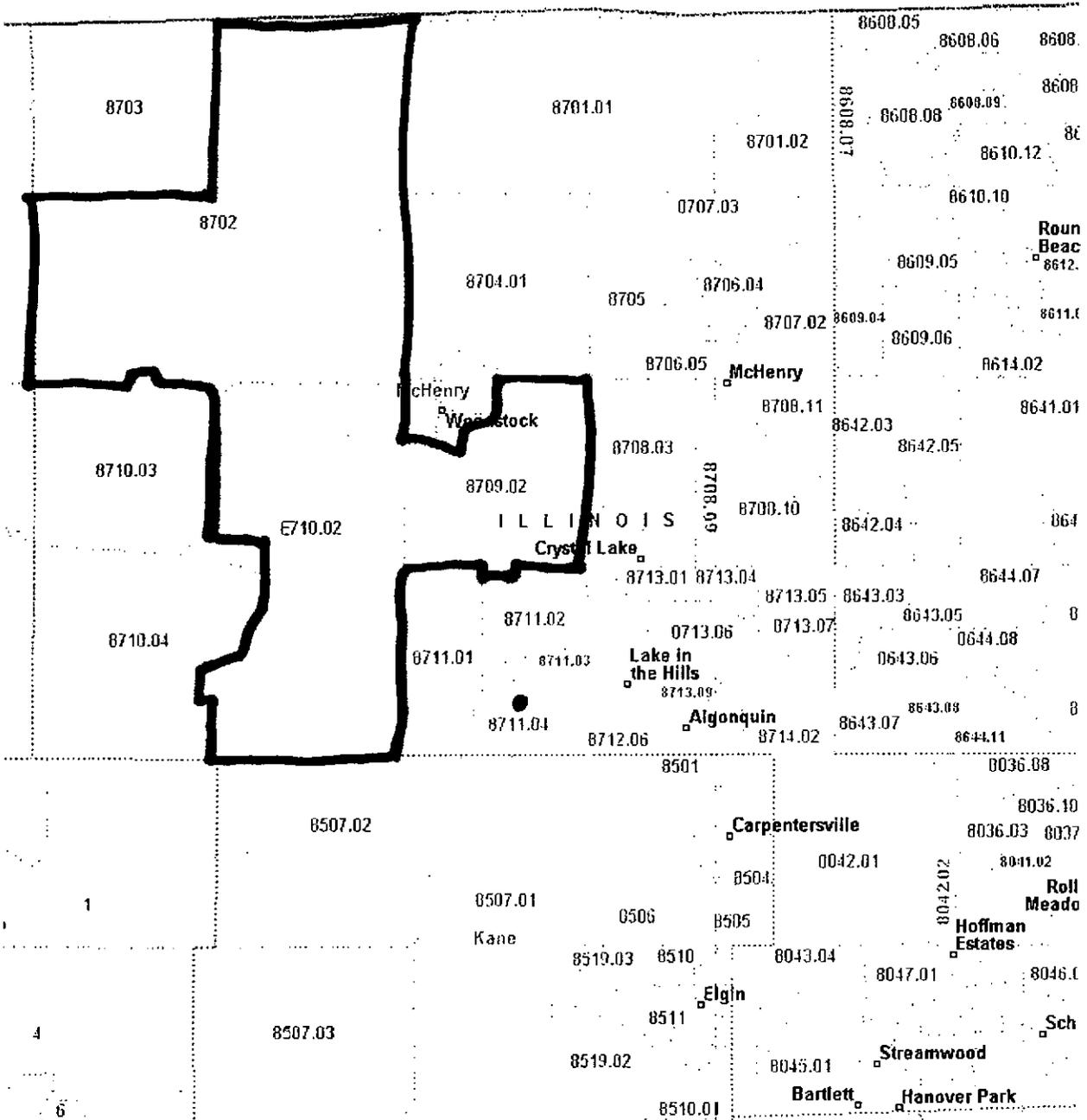
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- [HPSA & MUA/P by Address](#)
- [HPSA by State & County](#)
- [HPSA Eligible for the Medicare Physician Bonus Payment](#)

<b>Criteria:</b>						
State: Illinois						
County: McHenry County						
ID #: All						
<b>Results: 4 records found.</b>						
Name	ID#	Type	Score	Designation Date	Update Date	
McHenry County						
Pav Pop - Woodstock	07301	GOV MUP	0.00	2003/02/28		
CT 8702.00						
CT 8708.02						
CT 8710.02						

# Census Tract Map – McHenry County Medically Underserved Population



Map created using Microsoft MapPoint, demographics by Census Tract

= Medically Underserved Area/Population <http://muafind.hrsa.gov/index.aspx>

Proposed Site for Centegra Hospital - Huntley



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**Criteria:**  
 State: Illinois  
 County: Kane County  
 ID #: All

**Results: 15 records found.**

Name	ID#	Type	Score	Designation Date	Update Date
<b>Kane County</b>					
Inner City Aurora Service Area	00833	MUA	58.40	1994/04/04	2002/04/11
CT 8528.04					
CT 8532.00					
CT 8533.00					
CT 8534.00					
CT 8535.00					
CT 8538.00					
CT 8537.00					
CT 8538.00					
CT 8541.00					
CT 8542.00					
Kane Service Area	00905	MUA	54.30	1994/05/11	
CT 8512.00					
Central Carpentersville Service Area	08188	MUA	59.30	2001/01/30	
CT 8503.01					

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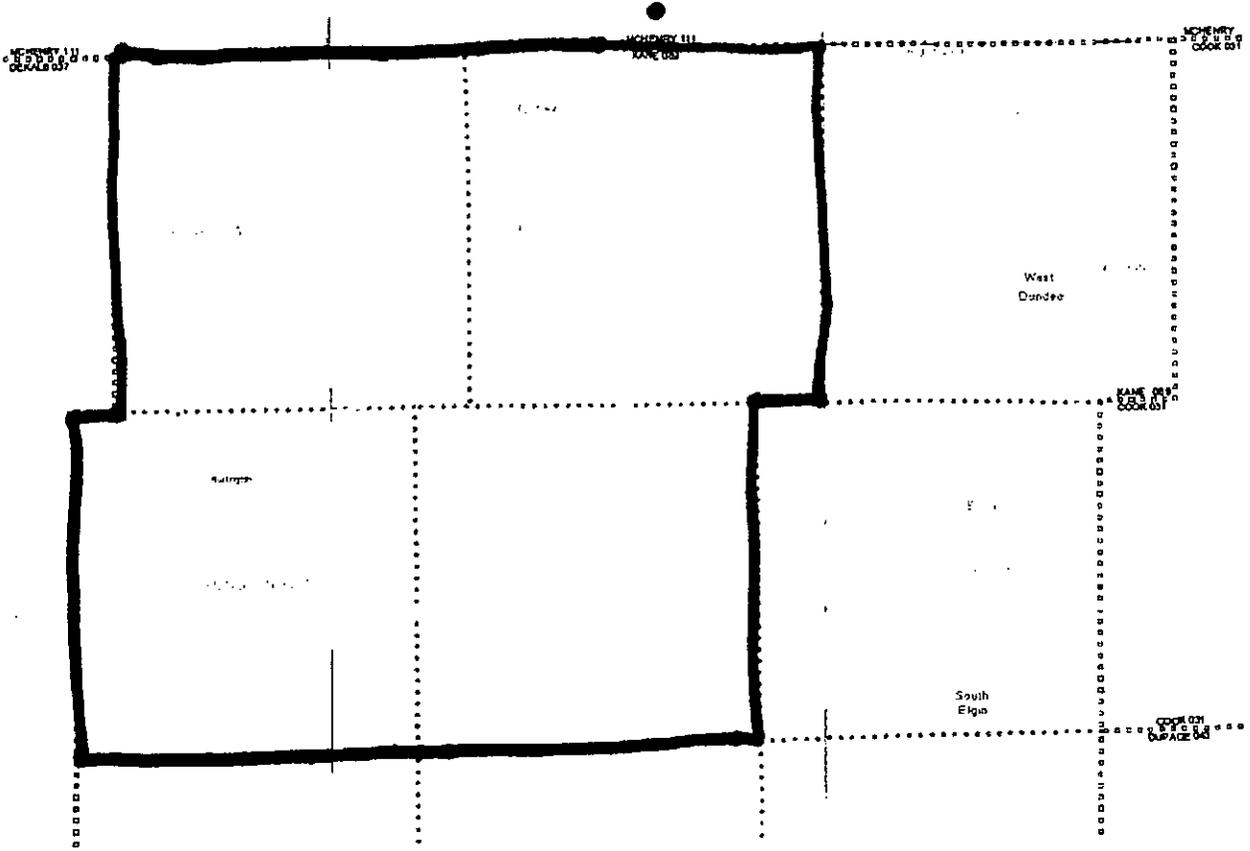
## Find Shortage Areas: HPSA by State & County

- [Shortage Designation Home](#)
- [Find Shortage Areas](#)
- [HPSA & MUA/P by Address](#)
- [HPSA Eligible for the Medicare Physician Bonus Payment](#)
- [MUA/P by State & County](#)

<b>Criteria:</b>						
State: Illinois		Discipline: Primary Medical Care				
County: Kane County		Metro: All				
Date of Last Update: All Dates		Status: Designated				
HPSA Score (lower limit): 0		Type: All				
<b>Results: 17 records found.</b> (Satellite sites of Comprehensive Health Centers automatically assume the HPSA score of the affiliated grantees. They are not listed separately.)						
HPSA Name	ID	Type	FTE	# Short	Score	
<b>089 - Kane County</b>						
Greater Elgin Family Care Center	117999175P	Comprehensive Health Center	1		5	
Visiting Nurse Association of Fox Valley	117999176K	Comprehensive Health Center			17	
Low Income - Aurora	117999178P	Population Group	6	8	15	
Aurora Township		Minor Civil Division				
Low Income - Elgin	117999178W	Population Group	2	3	12	
C.T. 8508.00		Census Tract				
C.T. 8509.00		Census Tract				
C.T. 8512.00		Census Tract				
C.T. 8513.00		Census Tract				
C.T. 8514.00		Census Tract				
C.T. 8515.00		Census Tract				
C.T. 8516.00		Census Tract				
Hampshire Service Area	117999179R	Geographical Area	3	2	10	
Burlington Township		Minor Civil Division				
Hampshire Township		Minor Civil Division				
Plato Township		Minor Civil Division				
Rutland Township		Minor Civil Division				
<input type="button" value="NEW SEARCH"/>			<input type="button" value="MODIFY SEARCH CRITERIA"/>			

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# Health Professional Shortage Area - Township Map of Northern Kane County



Map [http://www2.census.gov/plmap/pl\\_tr/st17/Illinois/c17089\\_Kane/](http://www2.census.gov/plmap/pl_tr/st17/Illinois/c17089_Kane/)

 = Health Professional Shortage Area <http://hpsafind.hrsa.gov/HPSASearch.aspx>

• Proposed Site for Centegra Hospital - Huntley

III.  
Criterion 1110.230 - Alternatives

1. The following alternatives to the proposed project were considered and rejected.

- a. Implement CON Project #08-002, which was approved by the Illinois Health Facilities Planning Board (IHFPB) In July, 2008, for a major modernization of Memorial Medical Center - Woodstock, now known as Centegra Hospital - Woodstock.

The project proposed to construct 77,478 gross square feet of new space to house the Centegra Women's Pavilion and to modernize 19,998 gross square feet of existing space within the hospital.

The project would increase the hospital's authorized Medical-Surgical (M-S) beds by 14 and Obstetric (OB) beds by 6, resulting in a total of 74 M-S beds and 20 OB beds at Centegra Hospital - Woodstock.

- b. Construct additions to both Centegra Hospital - McHenry and Centegra Hospital - Woodstock for the purposes of increasing authorized beds at both hospitals in the Medical-Surgical, Intensive Care, and Obstetric Services to meet the Bed Need in Planning Area A-10 (McHenry County) and increasing the size of ancillary services to accommodate the utilization generated by the additional beds. Abandon the project described in CON Project #08-002, replacing it with implementation of this alternative.

2. Each of these alternatives was rejected for the following reasons.

- a. Implement CON Project #08-002, which was approved by the Illinois Health Facilities Planning Board (IHFPB) In July, 2008, for a major modernization of Memorial Medical Center - Woodstock, now known as Centegra Hospital - Woodstock.

The project proposed to construct 77,478 gross square feet of new space to house the Centegra Women's Pavilion and to modernize 19,998 gross square feet of existing space within the hospital.

The project would increase the hospital's authorized Medical-Surgical (M-S) beds by 14 and Obstetric (OB) beds by 6, resulting in a total of 74 M-S beds and 20 OB beds at Centegra Hospital - Woodstock.

Capital Costs: \$52,201,702

This alternative was rejected for the following reasons.

- 1) The implementation of this alternative would be limited in scope, focused on the market area for only Centegra Hospital - Woodstock, and, as a result, would limit Centegra Health System in its ability to meet the health care needs of all residents of McHenry County and Centegra Health System's market area that is adjacent to McHenry County.

As noted in Attachment 12 of this CON application, Centegra Health System has determined that a more judicious use of resources to meet the long-term needs of Planning Area A-10 can best be achieved by establishing a new hospital in McHenry County. Thus, by incorporating the project originally envisioned for Centegra Hospital - Woodstock into a more comprehensive undertaking, Centegra Health System will be able to best address the health care needs of the rapidly-growing area of McHenry County and the market area for the proposed Centegra Hospital - Huntley.

- 2) An addition of 14 Medical-Surgical beds and 6 OB beds, as proposed in this project, would fall far short of addressing the current bed need in Planning Area A-10. The proposed new hospital will meet the existing bed need, as determined by the Illinois Department of Public Health and the Illinois Health Facilities and Services Review Board, as well as the anticipated increase in Medical-Surgical bed need that will occur between 2015, the date on which the State's bed need projections are based, and the hospital's second full year of operation (July 1, 2017 - June 30, 2018).
- 3) Modernization of Centegra Hospital - Woodstock and the addition of beds to that facility would not improve access to inpatient services for residents of the market area identified for Centegra Hospital - Huntley and would preclude the opportunity to serve the needs of the growing population in southern McHenry County.

All of the existing hospitals in Planning Area A-10 are located in the central or northern portions of McHenry County. None are located in the southern portion of McHenry County, which is where rapid population growth is occurring.

The large Calculated Bed Need in Planning Area A-10 and the high Medical-Surgical patient out-migration from McHenry County, both

of which are discussed in Attachments 12 and 20, demonstrate the need for inpatient services in the southern portion of the county.

- 4) Adding beds and enlarging Centegra Hospital - Woodstock would not improve access to care in the southern portion of the planning area. As stated above, the fastest growing portion of Planning Area A-10 is in southern McHenry County, and this area is projected to continue experiencing rapid growth for the foreseeable future.

The proposed new hospital will have as its primary purpose the improvement of access to health care in Planning Area A-10, and the establishment of this hospital will also alleviate the maldistribution of beds in the Planning Area.

- b. Construct additions to both Centegra Hospital - McHenry and Centegra Hospital - Woodstock for the purposes of increasing authorized beds at both hospitals in the Medical-Surgical, Intensive Care, and Obstetric Services to meet the Bed Need in Planning Area A-10 (McHenry County) and increasing the size of ancillary services to accommodate the utilization generated by the additional beds. Abandon the project described in CON Project #08-002, replacing it with implementation of this alternative.

Capital Costs: \$206,572,661

Implementation of this alternative would include the construction of additions to Centegra Hospital - McHenry and Centegra Hospital - Woodstock to accommodate the following additions to Clinical Service Areas at these hospitals.

- Addition of 100 Medical-Surgical beds (40 at Centegra Hospital - McHenry and 60 at Centegra Hospital - Woodstock) to meet the projected bed need that currently exists in Planning Area A-10;
- Addition of 8 Intensive Care beds (6 at Centegra Hospital - McHenry and 2 at Centegra Hospital - Woodstock) to meet the existing bed need that currently exists in Planning Area A-10 and construction of replacement Intensive Care Units that include the increased Authorized Beds at both hospitals;
- Addition of 20 Obstetric beds (6 at Centegra Hospital - McHenry and 14 at Centegra Hospital - Woodstock) to meet the existing bed need that currently exists in Planning Area A-10 and construction of

replacement Obstetric Nursing Units that include the increased Authorized Beds at both hospitals;

- Addition of 8 Operating Rooms (4 at Centegra Hospital - McHenry and 4 at Centegra Hospital - Woodstock) to accommodate the current need for expansion of existing Surgical capacity as well as projected increased need for additional Surgical capacity in Planning Area A-10;
- Addition of 13 Emergency Department exam/treatment stations (7 at Centegra Hospital - McHenry and 6 at Centegra Hospital - Woodstock) to accommodate the projected need for additional Emergency Department capacity in Planning Area A-10;
- Addition of 6 Labor-Delivery-Recovery Rooms (3 at Centegra Hospital - McHenry and 3 at Centegra Hospital - Woodstock) to accommodate the projected need for additional Obstetrical capacity in Planning Area A-10;
- Addition of 2 C-Section Rooms (1 at Centegra Hospital - McHenry and 1 at Centegra Hospital - Woodstock) to accommodate the projected growth in the Obstetrical caseload in Planning Area A-10;
- Expansion of other Clinical Service Areas that are not Categories of Services (e.g., Diagnostic Imaging, Non-Invasive Diagnostic Cardiology, Neurodiagnostics, Pulmonary Function Testing) to accommodate projected growth in utilization of Clinical Service Areas in Planning Area A-10.

A chart identifying the additional capacity proposed for each hospital is found on Page 7 of this Attachment.

This alternative was rejected for the following reasons.

- 1) Undertaking a major modernization and addition of beds at both existing Centegra general acute care hospitals (Centegra Hospital - McHenry and Centegra Hospital - Woodstock) as a means of meeting the currently-projected health care needs of Planning Area A-10 would cost more than \$200,000,000, but it would not assure the efficient distribution of beds within the planning area.

The location of each of these existing hospitals in Planning Area A-10 is optimal in relation to their surrounding communities which they currently serve. The existing hospitals are not located in the

high population growth areas of McHenry County or the market area.

- 2) Constructing additions to Centegra Hospital - McHenry and Centegra Hospital - Woodstock as a means of addressing the existing bed need in Planning Area A-10 (as determined by the Illinois Health Facilities and Services Review Board and the Illinois Department of Public Health) would be an imprudent allocation of scarce health care dollars.

This is because the cost to build these hospital additions is not significantly less than the cost to construct a new hospital in a needed location.

The small cost differential between the construction of additions to each hospital and the construction of a new hospital is due to the following.

First, the cost of building separate additions on each of the 2 existing hospitals has a higher construction cost per square foot than the construction cost of building a free-standing, optimally programmed and designed new hospital.

Second, there are duplicative costs required to construct separate additions to each of 2 existing hospitals. For example, each hospital must construct expanded vertical transportation systems (elevators, stairs); each hospital must expand its own support systems in order to accommodate the increased workload that will be experienced because of the additional beds and expansion of ancillary services (e.g., Dietary, Housekeeping, Engineering); and each hospital must expand its MEP (mechanical, electrical, and plumbing) systems to handle the increased size of its physical plant.

- 3) It was considered to be financially imprudent to construct high capital cost additions to Centegra Hospital - McHenry and Centegra Hospital - Woodstock, since they are older facilities that were constructed in communities that were much smaller and had younger residents with much different health care needs. Centegra Hospital - McHenry was constructed 30 years ago, and Centegra Hospital - Woodstock was constructed 17 years ago.

Both of these hospitals were built as replacement facilities for aged and obsolescent hospitals that had been constructed when McHenry and Woodstock were small towns in a rural county.

Thus, the establishment of a new hospital in a geographic portion of Planning Area A-10 where population growth is high and there are no hospitals was considered to be a prudent and responsible approach in meeting future community needs for health care programs and services in an underserved region in Illinois.

3. This item is not applicable to this project.

**ALTERNATIVE 2  
CONSTRUCT ADDITIONS TO  
CENTEGRA HOSPITAL - McHENRY AND CENTEGRA HOSPITAL - WOODSTOCK  
TO MEET BED NEED IN PLANNING AREA A-10**

<b>Clinical Services</b>	<b>Centegra Hospital- McHenry</b>	<b>Centegra Hospital - Woodstock</b>
Medical-Surgical Beds	40 Additional Beds	60 Additional Beds
Intensive Care Beds	6 Additional Beds, construct replacement ICU	2 Additional Beds construct replacement ICU
Obstetric Beds	6 Additional Beds construct replacement OB nursing unit	14 Additional Beds construct replacement OB nursing unit
Surgery	4 Additional Operating Rooms	4 Additional Operating Rooms
Emergency Department	7 Additional Exam/Treatment Stations	6 Additional Exam/Treatment Stations
Labor-Delivery-Recovery Suite	3 Additional Labor- Delivery-Recovery Rooms	3 Additional Labor- Delivery-Recovery Rooms
C-Section Suite	1 Additional C-Section Room	1 Additional C-Section Room
Other Clinical Service Areas (Diagnostic Imaging, Non-Invasive Diagnostic Cardiology, Neurodiagnostics, Pulmonary Function Testing)	Expand	Expand

IV.  
Project Scope, Utilization:  
Size of Project

This project proposes the establishment of a new hospital in Planning Area (P.A.) A-10, McHenry County. The purpose of this project is to meet the Adjusted Beds Needed that currently exists in P.A. A-10 as identified in the Illinois Department of Public Health's "Revised Bed Need Determinations" and the projected increase in Medical-Surgical bed need that can be forecast by 2018, the second complete year when the proposed new hospital will be operational.

This project includes both Clinical and Non-Clinical Service Areas.

The project includes the following Clinical Service Areas.

- Medical-Surgical Category of Service
- Intensive Care Category of Service
- Obstetric Category of Service
- Surgery
- Post-Anesthesia Recovery (PACU, Recovery)
- Surgical Prep (for both A.M. Admits and Same-Day Surgery Patients) and Stage II Recovery
- Endoscopy
- Emergency Department
- Diagnostic Imaging (Radiology, Radiography/Fluoroscopy, Ultrasound, CT Scanning, MRI Scanning, Nuclear Medicine)
- Labor/Delivery/Recovery Suite
- C-Section Suite
- Newborn Nurseries (Level I, Level II)
- Inpatient Physical Therapy/Occupational Therapy
- Non-Invasive Diagnostic Cardiology } These Services share support areas and
- Neurodiagnostics } are, therefore, shown as 1 department for
- Pulmonary Function Testing } square footage purposes
- Respiratory Therapy
- Pre-Admission Testing
- Inpatient Acute Dialysis
- Clinical Laboratory, including Morgue
- Pharmacy
- Central Sterile Processing/Distribution
- Dietary

1. The Illinois certificate of need (CON) Rules include State Guidelines (77 Ill. Adm. Code 1110.APPENDIX B) for the following Clinical Service Areas that are included in this project.

- Medical-Surgical Service
- Intensive Care Service
- Obstetric Service
- Surgery (State Guidelines identify this as "Surgical Operating Suite (Class C)")
- Post-Anesthesia Recovery Phase I (PACU, Recovery)

Post-Anesthesia Recovery Phase II (State Guidelines do not include Surgical Prep.)  
Endoscopy (State Guidelines identify this as "Surgical Procedure Suite (Class B)")  
Emergency Department  
Diagnostic Imaging (Radiology, Radiography/Fluoroscopy, Ultrasound, CT Scanning, MRI Scanning, Nuclear Medicine)  
Labor/Delivery/Recovery Suite  
C-Section Suite  
Newborn Nurseries (Level I, Level II)

There are no State guidelines (77 Ill. Adm. Code 1110.APPENDIX B) for the balance of the Clinical Service Areas that are included in this project. These Clinical Service Areas are listed below.

Inpatient Physical Therapy/Occupational Therapy  
Non-Invasive Diagnostic Cardiology  
Neurodiagnostics  
Pulmonary Function Testing  
Respiratory Therapy  
Pre-Admission Testing  
Inpatient Acute Dialysis  
Clinical Laboratory, including Morgue  
Pharmacy  
Central Sterile Processing/Distribution  
Dietary

An analysis of the proposed size (number of beds or rooms and gross square footage) of the Clinical Service Areas at Centegra Hospital - Huntley for which there are State Guidelines is found below.

This analysis is based upon the following.

- Projected utilization for Centegra Hospital - Huntley for its first 2 full years of operation (FY2017, FY2018) for those services for which the approvable number of rooms or stations is based upon utilization.  
  
Projected utilization for each of the Clinical Service Areas in this project for which there are utilization standards or occupancy targets and the rationale supporting these projections will be found in Attachment 15.
- Total proposed key rooms and total departmental gross square footage (DGSF) at the proposed new hospital building.

Space programs for all the Clinical Service Areas proposed for Centegra Hospital - Huntley, including those for which there are no State Guidelines, are appended to this Attachment.

The chart on the next page identifies the State Guidelines for each of the Clinical Service Areas included in this project for which State Guidelines exist.

## INPATIENT NURSING SERVICES

<u>Service</u>	<u>Occupancy Target per 77 Ill. Adm. Code 1100</u>	<u>2018 Patient Days (second full year of operation)</u>	<u>Number of Beds Justified at Occupancy Target</u>	<u>Proposed Authorized Beds</u>
Medical-Surgical Service	85% for hospitals with 100-199 M/S beds	34,867	113	100
Intensive Care	60%	2,850	13	8
Obstetric Service	75% for 11-25 beds	5,647	21	20

<u>Service</u>	<u>State CON Standard DGSF/bed</u>	<u>DGSF Justified for Proposed Beds</u>	<u>Proposed DGSF</u>
Medical-Surgical Service	500-660 DGSF/Bed	50,000-66,000 DGSF	59,112
Intensive Care Service	600-685 DGSF/Bed	4,800-5,480 DGSF	5,415
Obstetric Service	500-660 DGSF/Bed	10,000-13,200 DGSF	13,071

## ANCILLARY AND SUPPORT SERVICES

<u>Service</u>	<u>State Norm units/room</u>	<u>2018 Volume (2<sup>nd</sup> full year of operation)</u>	<u>Total Rooms Justified</u>	<u>Total Proposed Rooms</u>
Surgery	1,500 Hours/OR	11,169 Hours	8	8
Recovery (PACU)	min. 1/OR	N/A	Minimum of 8	8
Surgical Prep and Stage II Recovery	Stage II Recovery: min. 4/OR (may include PACU stations)	N/A	Min. of 32	32
Endoscopy	1,500 Hours/ Procedure Room	2,899 Hours	2	2
Emergency Department	2,000 Visits/ Treatment Station	30,586 Visits	16	13

<u>Service</u>	<u>State Norm units/room</u>	<u>2018 Volume (2<sup>nd</sup> full year of operation)</u>	<u>Total Rooms Justified</u>	<u>Total Proposed Rooms</u>
Diagnostic Imaging				
General Radiology	8,000 Proc./Unit	9,571 Proc.	2	2
Radiology/Fluoroscopy	6,500 Proc./Unit	7,128 Rad. + 648 Fluoro. = 7,776 Proc.	2	1
Ultrasound	3,100 Visits/Unit	3,709 Visits	2	2
CT Scanning	7,000 Visits/Unit	4,187 Visits	1	1
MRI	2,500 Proc./Unit	2,743 Proc.	2	1
Nuclear Medicine	2,000 Visits/Unit	988 Visits	1	1
TOTAL Diagnostic Imaging			10	8
Labor/Delivery/Recovery Suite	400 Births/LDR	2,022 Births	6	6
C-Section Suite	800 Proc./Room	819 Proc.	2	2
Newborn Nurseries (Levels I & II)	N/A	N/A	N/A	14 stations

\*N/A refers to there being no State Norm for number of rooms. The State Norm for approvable DGSF will be found in the next chart.

The proposed number of beds or rooms for all categories of service and Clinical Service Areas included in this project is within the State Guidelines (77 Ill. Adm. Code 1110.APPENDIX B).

The square footage proposed for each Clinical Service Area for which State Guidelines exist is shown below.

<u>Service</u>	<u>State Norm DGSF/room or unit</u>	<u>Total DGSF Justified per program</u>	<u>Total Proposed DGSF</u>
Surgery	2,750 DGSF/ Operating Rm.	22,000	21,525
Recovery (PACU)	180 DGSF/ Recovery Station	1,440	1,382
Surgical Prep and Stage II Recovery	400 DGSF/ Recovery Station	12,800	12,717
Endoscopy	1,100 DGSF/ Proc. Rm.	2,200	2,175
Emergency Department	900 DGSF/ Treatment Station	11,700	10,431

<u>Service</u>	<u>State Norm DGSF/room or unit</u>	<u>Total DGSF Justified per program</u>	<u>Total Proposed DGSF</u>
Diagnostic Imaging			
General Radiology	1,300 DGSF/ Unit	2,600	
Radiology/Fluoroscopy	1,300 DGSF/ Unit	1,300	
Ultrasound	900 DGSF/Unit	1,800	
CT Scanning	1,800 DGSF/ Unit	1,800	
MRI	1,800 DGSF/ Unit	1,800	
Nuclear Medicine	1,600 DGSF/ Unit	1,600	
TOTAL Diagnostic Imaging		10,900	10,785
Labor/Delivery/Recovery Suite	1,120-1,600 DGSF/Room	6,720-9,600	9,445
C-Section Suite	2,075/OR	4,150	4,026
Newborn Nurseries (Levels I & II)	160 DGSF/OB Bed	3,200	3,167

The following published data and studies identify the scope of services, hospital licensing requirements, and contemporary standards of care that Centegra Hospital - Huntley addressed in developing the proposed project:

- Illinois Department of Public Health, "Revised Bed Need Determinations" to the "Inventory of Health Care Facilities and Services and Need Determinations," December, 2010;
- Illinois Department of Public Health, "Inventory of Health Care Facilities and Services and Need Determinations," May 28, 2008
- Claritas via Intellimed;
- COMPdata via Intellimed;
- Illinois Hospital Licensing Requirements (77 Ill. Adm. Code 250.2440);
- Standards for Accessible Design: ADA Accessibility Guidelines for Buildings and Facilities (28 Code of Federal Regulations, 36.406 ADAAG, Sections 4.1 through 4.35 and 6.1 through 6.4);
- The Facilities Guidelines Institute and The American Institute of Architects Academy of Architecture for Health with assistance from the U.S. Department of Health and Human Services, 2006 Guidelines for Design and Construction of Healthcare Facilities. 2006: American Institute of Architects.

2. The proposed square footage of each of the Clinical Service Areas included in this project is within the State Guidelines found in 77 Ill. Adm. Code 1110.APPENDIX B, as shown in the chart that begins on the next page.

**ALL CLINICAL SERVICE AREAS**

<b><u>CLINICAL SERVICE AREAS</u></b>	<b><u>PROPOSED DGSF</u></b>	<b><u>STATE STANDARD</u></b>	<b><u>DIFFERENCE</u></b>	<b><u>MET STANDARD?</u></b>
Medical/Surgical Service	59,112 for 100 M/S Beds	500-660/Bed = 50,000-66,000	under by 6,888	Yes
Intensive Care Service	5,415 for 8 ICU Beds	600-685/Bed = 4,800-5,480	under by 65	Yes
Obstetric Service	13,071 for 20 OB Beds	500-660/Bed = 10,000-13,200	under by 129	Yes
Surgery	21,525 for 8 ORs	2,750/OR = 22,000	under by 475	Yes
Recovery (PACU)	1,382 for 8 Stations	180/Station = 1,440	under by 58	Yes
Surgical Prep & Stage II Recovery	12,717 for 32 Stations	400/Station = 12,800	under by 83	Yes
Endoscopy	2,175 for 2 Proc.Rms.	1,100/Proc. Rm. = 2,200	under by 25	Yes
Emergency	10,431 for 13 Treat. Rms.	900/Treat. Rm. = 11,700	under by 1,269	Yes
Diagnostic Imaging				
Gen. Rad.		2,600 for 2 Units		
Rad./Fluor.		1,300 for 1 Unit		
Ultrasound		1,800 for 2 Units		
CT Scanner		1,800 for 1 Unit		
MRI		1,800 for 1 Unit		
Nuclear Medicine		1,600 for 1 Unit		
TOTAL Diagnostic Imaging	10,785 for 8 Units	10,900 for 8 Units	under by 115	Yes

<u>CLINICAL SERVICE AREAS</u>	<u>PROPOSED DGSF</u>	<u>STATE STANDARD</u>	<u>DIFFERENCE</u>	<u>MET STANDARD?</u>
Labor/ Delivery/ Recovery Suite	9,445 for 6 LDRs	1,120- 1,600/LDR = 6,720-9,600	under by 155	Yes
C-Section Suite	4,026 for 2 ORs	2,075/OR = 4,150	under by 124	Yes
Newborn Nurseries (Levels I & II)	3,167 for 20 OB Beds	160/OB Bed = 3,200	under by 33	Yes

The proposed square footage for all categories of service and other Clinical Service Areas that have State Guidelines is within the State Guidelines found in 77 Ill. Adm. Code 1110.APPENDIX B.

Appended to this Attachment are the following documents that were used as the key guidelines in determining the appropriate floor area for these clinical services in addition to the Illinois Hospital Licensing Requirements (77 Ill. Adm. Code 250) and the ADA Accessibility Guidelines for Buildings and Facilities (28 Code of Federal Regulations, 36.406.ADAAG).

- Space Programs for all categories of service and other Clinical Service Areas included in this project, including those for which there are no State Guidelines in 77 Ill. Adm. Code 1110.APPENDIX B.
- The Facilities Guidelines Institute and The American Institute of Architects Academy of Architecture for Health with assistance from the U.S. Department of Health and Human Services, 2006 Guidelines for Design and Construction of Healthcare Facilities. 2006: American Institute of Architects.

## Medical-Surgical Nursing Units

4 nursing units, 25 beds each

<u>Area Description</u>	<u>Qty</u>
<u>Patient Area</u>	
Patient Room	92
Isolation Patient Room with Anteroom	8
Patient Bathroom	100
Entry/Charting	100
<u>Staff Area</u>	
Nurse Station	8
Medications	8
Nutrition	8
Clean Supply Room	8
Soiled Utility Room	12
Equipment Storage Room	8
Crash Cart Alcove	4
Nurse Managers' Office	2
Unit Clerk Stations	4
Assistant Managers' Office	4
Breakroom	2
Lockers	2
Staff Toilet	4

## Intensive Care Unit

<u>Area Description</u>	<u>Qty</u>
<u>Patient Area</u>	
Patient Room	7
Isolation Patient Room with Anteroom	1
Patient Toilet Room	8
Entry/Charting	8
<u>Staff Area</u>	
Nurse Station	1
Medications	1
Nutrition	1
Clean Supply Room	1
Soiled Utility Room	1
Equipment Storage Room	1
Crash Cart Alcove	1
Nurse Manager's Office	1
Unit Clerk Station	1
Assistant Manager's Office	1
Breakroom	1
Lockers	1
Staff Toilet	1

## Obstetric Nursing Unit

Area Description	Qty
<u>Patient Area</u>	
Patient Room	18
Isolation Patient Room with Anteroom	2
Patient Toilet Room	20
Entry/Charting	20
Lactation Consult	1
<u>Staff Area</u>	
Nurse Station	2
Medications	2
Nutrition	2
Clean Supply Room	2
Soiled Utility Room	2
Equipment Storage Room	2
Crash Cart Alcove	1
Nurse Manager's Office	1
Unit Clerk Station	1
Assistant Managers' Office	2
Breakroom	1
Lockers	1
Staff Toilet	1

## Surgery

<u>Area Description</u>	<u>Qty</u>
<u>Patient Area</u>	
Operating Room	8
Inpatient pre-op holding bay	2
Scrub Sink	8
Stretcher Alcove	8
Supply/Substerile Core	1
Consultation Room	2
Housekeeping Closet	1
Crash Cart	2
<u>Staff Area</u>	
Control Station	1
Registration/Workroom	1
Medications	1
Clean Supply Room	3
Soiled Utility Room	3
Pathology Workroom	1
Anesthesia Workroom	1
Anesthesia Storage	1
Equipment Storage Room	2
Equipment Alcove	4
Medical Director's Office	1
Surgery Manager's Office	1
Staff Office	3
Female Staff Lockers and Toilet	1
Male Staff Lockers and Toilet	1
Staff Lounge	1
Staff Toilet	2
Housekeeping Closet	1

## Post-Anesthesia Care Unit (Recovery)

<u>Area Description</u>	<u>Qty</u>
<u>Patient Area</u>	
Recovery Stations	8
<u>Staff Area</u>	
Nurse Station	1
Soiled Utility Room	1
Clean Supply Room with Medications	1
Staff Toilet	1
Housekeeping Closet	1
Crash Cart	1

## Surgical Prep/Stage II Recovery

<u>Area Description</u>	<u>Qty</u>
<u>Patient Area</u>	
Prep/Recovery room A	28
Prep/Recovery room B	4
Patient Toilets	8
Stretcher/Equip Alcove	6
Family Consultation Room	2
<u>Staff Area</u>	
Nurse Station	4
Medication Station	4
Nutrition Station	2
Soiled Utility Room	4
Clean Supply Room	4
Equipment Storage Room	2
Manager's Office	1
Shared Office	3
Staff Locker Room/Lounge	2
Staff Toilet	3
Dictation Alcove	2
Housekeeping Closet	2
Crash Cart	2

## Endoscopy Suite

<u>Area Description</u>	<u>Qty</u>
<u>Patient Area</u>	
Procedure Room	2
Stretcher Alcove	2
Patient Toilet	1
<u>Support Area</u>	
Decontamination	1
Soiled Utility Room	1
Clean Supply Room	1
Equipment Storage Room	1
Manager's Office	1
Dictation Alcove	1
Housekeeping Closet	1
Crash Cart	1

## Emergency Department

Area Description	Qty
<u>Patient Area</u>	
Exam/Treatment Bay	10
Trauma Treatment Bay	2
Isolation Exam/Treatment Station	1
Patient Toilet	12
Triage Station	3
Decontamination Room	1
Family Area	2
Crash Cart	2
<u>Staff Area</u>	
Registration/Reception Area	3
Nurse Station	2
Communications Station for EMS	1
Medications	1
Nourishment	1
Clean Supply Room	2
Soiled Utility Room	2
Equipment Storage Room	1
Crash Cart Alcove	1
Equipment Alcove	4
Medical Director's Office	1
Unit Manager's Office	1
Staff Support Office	4
Female Staff Locker Room & Toilet	1
Male Staff Locker Room & Toilet	1
Staff Lounge	1
Staff Toilet	2
Housekeeping Closet	2

## Diagnostic Imaging

Area Description	Qty
<u>Patient Area</u>	
General Radiography Imaging Room	2
General Radiology Control Room	2
Radiology/Fluoroscopy Imaging Room	1
Radiology/Fluoroscopy Control Room	1
Ultrasound Imaging Room	2
Patient Toilet	1
CT Procedure Room	1
CT Control Room	1
Patient Toilet	1
Equipment Storage	1
MRI Procedure Room	1
MRI Control Room	1
MRI Vestibule	1
Outpatient Changing Room	1
Patient Toilet	1
Nuclear Medicine Imaging Room	1
Patient Toilet	1
Hot Lab	1
Tech Workroom	1
Patient Holding/Recovery	3
Nurse Station	1
Clean Supply Room	1
Soiled Utility Room	1
Patient Toilet	1
<u>Staff Area</u>	
Director's Office	1
Shared Staff Offices	3
Conference Room	1
Tech Workroom	2
Radiologists' Reading Room	3
Staff Lounge	1
Lockers - Male	1
Lockers - Female	1
Staff Toilet	3
Stretcher Alcoves	6
Equipment Alcoves	2
Clean Supply Room	1
Soiled Utility Room	1
Housekeeping Closet	1
Crash Cart	2

## Labor-Delivery-Recovery Suite

Area Description	Qty
<u>Patient Area</u>	
Labor-Delivery-Recovery Room	5
Isolation Labor-Delivery-Recovery Room with Anteroom	1
Patient Bathroom	6
Infant Resuscitation	6
Early Labor/Triage Area	3
Early Labor Toilet	3
Entry/Charting	6
Isolation Room	1
<u>Staff Area</u>	
Nurse Station	1
Medications	1
Nutrition	1
Clean Supply Room	1
Soiled Utility Room	1
Equipment Storage Room	7
Crash Cart Alcove	1
Nurse Manager's Office	1
Unit Clerk	1
Assistant Managers' Offices	2
Clinical Nurse Specialists' Offices	3
Conference/Meeting Room	1
Breakroom	1
Housekeeping Closet	1
Lockers	1
Staff Toilet	1

## C-Section Suite

<u>Area Description</u>	<u>Qty</u>
<u>Patient Area</u>	
C-Section Procedure Room	2
Infant Resuscitation Area	2
Scrub Area	2
Recovery Bays	3
Entry/Charting	2
Housekeeping Closet	1
<u>Staff Area</u>	
Nurse Station	1
Medications	1
Nutrition	1
Clean Supply	1
Soiled Utility	1
Crash Cart Alcove	1
Breakroom	1
Housekeeping Closet	1
Female Staff Lockers and Toilet	1
Male Staff Lockers and Toilet	1
Staff Lounge	1
Staff Toilet	1

## Newborn Nurseries, Levels I and II

Area Description	Qty
<u>Patient Area</u>	
Nursery - Level I bassinets	8
Nursery - Level II isolettes	6
Gowning vestibule	2
Procedure/Exam room	2
Crash Cart	2
Housekeeping Closet	2
<u>Staff Area</u>	
Nurse Station - Level 1 Nursery	1
Nurse Station - Level II Nursery	1
Medications	2
Formula Preparation	2
Formula Supply	2
Clean Supply Room	2
Soiled Utility Room	2
Crash Cart Alcove	2
Female Staff Lockers and Toilet	2
Male Staff Lockers and Toilet	2
Staff Lounge	2
Staff Toilet	2

## Inpatient Physical Therapy/Occupational Therapy

<u>Area Description</u>	<u>Qty</u>
<u>Patient Area</u>	
IP treatment area	1
Patient Toilet	1
<u>Staff Area</u>	
Nurse Station	1
Clean Supply Room	1
Soiled Utility Room	1
Equipment Storage	1
Crash Cart	1

## Non-Invasive Cardiology, Neurodiagnostics, Pulmonary Function Testing

Area Description	Qty
<u>Patient Area</u>	
Stress Echo/Treadmill Testing Room	2
TEE (transesophageal) Testing Room	1
Echo/Ultrasound Testing Room	2
EKG Testing Room	2
Holter / Tilt Table Testing Room	1
Vascular Lab	1
Cardiology Equipment Storage	1
EEG/EMG Testing Room	1
PFT	1
Patient Hold/Recovery	2
Patient Toilet	5
<u>Staff Area</u>	
Nurse Station	1
Tech workroom	9
Medication	1
Clean Supply Room	2
Soiled Utility Room	2
Cardiologists' Reading Room	2
Equipment alcoves	2
Director's Office	1
Shared Staff office	3
Conference Room	1
Staff Toilet	3
Stretcher alcoves	6
Housekeeping Closet	1
Crash Cart	2

## Respiratory Therapy

<u>Area Description</u>	<u>Qty</u>
<u>Preparation Area</u>	
Workroom	1
Equipment Storage	6
ICU Workroom	1
Parts Storage	1
<u>Staff Area</u>	
Soiled Utility Room	1
Therapist workroom	6
Conference / Education	1
Manager's Office	1
Breakroom	1
Locker Room	1
Staff Toilet	1

## Inpatient Acute Dialysis

<u>Area Description</u>	<u>Qty</u>
<u>Patient Area</u>	
Patient Bay	4
Patient Toilet	1
Nurse Station	1
<u>Staff Area</u>	
Staff work/reporting	1
Medication	1
Clean Supply	1
Soiled Utility	1
Equipment/Filtration	1
Staff Breakroom	1
Staff Lockers	1
Staff Toilet	1
Crash Cart	1

## Pre-Admission/Pre-Procedure Testing

<u>Area Description</u>	<u>Qty</u>
<u>Patient Area</u>	
Reception Area	1
Exam Room	3
Patient Toilet	1
Patient Lounge	1
<u>Staff area</u>	
Nurse station	1
Workroom	1
Clean Supply Room	1
Soiled Utility Room	1

## Clinical Laboratory and Morgue

<u>Area Description</u>	<u>Qty</u>
<u>Clinical Pathology</u>	
Core Lab	1
Blood Bank	1
Receiving / Intake	1
<u>Morgue/Body Holding</u>	
Body Holding	4
Ante-room	1
<u>Support</u>	
Medical gas storage	1
Bulk Storage	1
Refrigerators/Freezers	2
Biohazard	1
<u>Staff Area</u>	
Lockers	2
Breakroom	1
Staff Toilet	2
Housekeeping	1

## Pharmacy

<u>Area Description</u>	<u>Qty</u>
<u>Compounding and Preparation</u>	
Dispensing Area	1
Packaging Area	1
Compounding Area	1
Quality Control Area	1
Order Entry Area	1
IV Additive	1
Ante Room	1
IV Storage	1
Bulk Storage	1
Receiving/Break-out	1
Trash Holding	1
Narcotic Storage	1
Sample Drug Storage	1
Alcohol Storage	1
Storage	1
Housekeeping	1
<u>Staff Area</u>	
Director's Office	1
Operations Manager's Office	1
Workstations	4
Pharmacists' Office	2
Hoteling Office	2
Conference Room /Education	1
Breakroom	1
Locker Room	2
Staff Toilet	2

## Central Sterile Processing and Distribution

Area Description	Qty
<u>Decontamination</u>	
Cart breakdown	1
Gross washing	1
Washer	2
Equipment clean-up	1
Soiled Utility	1
Trash / Trash Chute	1
 <u>Sterilizers</u>	
Sterilizers	2
Sterad	1
Workroom	1
 <u>Assembly</u>	
Cart Storage	18
Cart set-up	1
Prep & Pact	1
 <u>Storage</u>	
Disposables	1
Instruments	1
Receiving/Breakout	1
Vendor equipment	1
 <u>Staff Area</u>	
Manager	1
Staff shared area	2
Lockers - Male	1
Lockers - Female	1
Toilets	2
Breakroom	1
Housekeeping	1

## Dietary

<u>Area Description</u>	<u>Qty</u>
<u>Kitchen - Preparation</u>	
Production Cooking	1
Production Prep Area	1
Blast Chiller	1
Thawing Area	3
Cold Food Prep Area	1
Nourishment Preparation	1
Room Service Tray Prep Area	1
Room Service Cart Stage Area	1
Catering Prep Area	1
<u>Kitchen - Storage</u>	
Dry Storage	1
Catering Storage	1
Paper Supply	1
Walk-in Freezer	1
Walk-in Refrigerator	1
Dairy Refrigerator	1
Cooks' Refrigerator	1
Emergency Food Storage	1
Chemical Storage	1
<u>Kitchen -Support</u>	
Dishwashing Area	1
Pot Washing Area	1
Cart Washing Area	1
Cart Holding Area	1
Supply Storage	1
Housekeeping Closet	1
<u>Staff Area</u>	
Director's Office	1
Clinical Manager's Office	1
Chef's Office	1
Clinical Dieticians' Offices	3
Supervisors' Office	1
Call Center	1
Cash Room	1
Breakroom	1
Staff Locker Room- Male	1
Staff Locker Room - Female	1
Staff Toilet	1

2006

# Guidelines

for Design and Construction  
of Health Care Facilities

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# Hospitals

# 2.1 General Hospitals

*Appendix material, which appears in shaded boxes at the bottom of the page, is advisory only.*

## 1 General Considerations

### 1.1 Applicability

The general hospital shall meet all the standards described herein. Deviations shall be described and justified in the functional program for specific approval by authorities having jurisdiction.

### 1.2 Functional Program

For each project, there shall be a functional program for the facility in accordance with Section 1.2-2.

#### 1.2.1 Size and Layout

Department size and clear floor areas shall depend on program requirements and organization of services within the hospital. Combination or sharing of some functions shall be permitted provided the layout does not compromise safety standards and medical and nursing practices.

#### \* 1.2.2 Swing Beds

When the concept of swing beds is part of the functional program, care shall be taken to include requirements for all intended categories.

### 1.3 Site

#### \* 1.3.1 Parking

1.3.1.1 Each new facility, major addition, or major change in function shall have parking space to satisfy the needs of patients, personnel, and the public.

1.3.1.2 A formal parking study is desirable. In the absence of such a study, provide one space for each bed plus one space for each employee normally present on any single weekday shift. This ratio may be reduced in an area convenient to public transportation or public parking facilities, or where carpool or other arrangements to reduce traffic have been developed.

1.3.1.3 Additional parking may be required to accommodate outpatient and other services.

1.3.1.4 Separate and additional space shall be provided

for service delivery vehicles and vehicles utilized for emergency patients.

## 2 Common Elements

### 2.1 General

The spaces included in this section are common to most hospital facilities and shall be required for a specific hospital unit or location when specified in the Guidelines text for that unit or location.

### 2.2 Patient Rooms or Care Areas

#### 2.2.1 Toilet Rooms

Each patient shall have access to a toilet room without having to enter a general corridor area.

2.2.1.1 One toilet room shall serve no more than two patient rooms and no more than four beds.

2.2.1.2 The toilet room shall contain a water closet and a hand-washing station.

2.2.1.3 Toilet room doors shall swing outward or be double acting. Where local requirements permit, use of folding doors shall be permitted, provided adequate provisions are made for acoustical and visual privacy.

#### 2.2.2 Patient Storage Locations

Each patient shall have within his or her room a separate wardrobe, locker, or closet suitable for hanging full-length garments and for storing personal effects.

## APPENDIX

### A1.2.2 Swing Beds

Facility design for swing beds often requires additional corridor doors and provisions for switching nurse call operations from one nurse station to another depending on use.

### A1.3.1 Parking

A formal parking/traffic study should be conducted to ensure that adequate parking and traffic flow is provided to accommodate inpatients, outpatients, staff, and visitors.

## 2.1 GENERAL HOSPITALS

### 2.3 Support Areas for Patient Care

#### 2.3.1 Administrative Center or Nurse Station

2.3.1.1 This area shall have space for counters and storage and shall have convenient access to hand-washing stations.

2.3.1.2 This area may be combined with or include centers for reception and communication.

#### 2.3.2 Documentation Area

Charting facilities shall have linear surface space adequate to ensure that staff and physicians can chart and have simultaneous access to information and communication systems.

#### 2.3.3 Multipurpose Room

Multipurpose rooms are provided for staff, patients, and patients' families for patient conferences, reports, education, training sessions, and consultation.

2.3.3.1 These rooms shall be accessible to each nursing unit.

2.3.3.2 These rooms may be on other floors if convenient for regular use.

2.3.3.3 One such room shall be permitted to serve several nursing units and/or departments.

#### 2.3.4 Medication Station

Medication shall be distributed from a medicine preparation room or unit, from a self-contained medicine dispensing unit, or by another approved system.

##### 2.3.4.1 Medicine preparation room

- (1) This room shall be under visual control of the nursing staff.
- (2) This room shall contain a work counter, a hand-washing station, a lockable refrigerator, and locked storage for controlled drugs.
- (3) When a medicine preparation room is to be used to store one or more self-contained medicine-dispensing units, the room shall be designed with adequate space to prepare medicines with the self-contained medicine-dispensing unit(s) present.

##### 2.3.4.2 Self-contained medicine dispensing unit

- (1) Location of a self-contained medicine dispensing unit shall be permitted at the nurse station, in the clean workroom, or in an alcove, provided the unit has adequate security for controlled drugs and adequate lighting to easily identify drugs.
- (2) Convenient access to hand-washing stations shall be provided. (Standard cup-sinks provided in many self-contained units are not adequate for hand-washing.)

#### 2.3.5 Nourishment Area

2.3.5.1 A nourishment area shall have a sink, work counter, refrigerator, storage cabinets, and equipment for hot and cold nourishment between scheduled meals. This area shall include space for trays and dishes used for nonscheduled meal service.

2.3.5.2 Provisions and space shall be included for separate temporary storage of unused and soiled dietary trays not picked up at mealtime.

2.3.5.3 Hand-washing stations shall be in or immediately accessible from the nourishment area.

#### 2.3.6 Ice Machine

2.3.6.1 Ice-making equipment may be in the clean workroom/holding room or at the nourishment station.

2.3.6.2 Ice intended for human consumption shall be from self-dispensing ice makers.

#### 2.3.7 Clean Workroom or Clean Supply Room

Such rooms shall be separate from and have no direct connection with soiled workrooms or soiled holding rooms.

2.3.7.1 Clean workroom. If the room is used for preparing patient care items, it shall contain a work counter, a hand-washing station, and storage facilities for clean and sterile supplies.

2.3.7.2 Clean supply room. If the room is used only for storage and holding as part of a system for distribution of clean and sterile materials, omission of the work counter and hand-washing station shall be permitted.

**2.3.8 Soiled Workroom or Soiled Holding Room**

Such rooms shall be separate from and have no direct connection with clean workrooms or clean supply rooms.

**2.3.8.1** Soiled workrooms. These shall contain the following:

- (1) A clinical sink (or equivalent flushing-rim fixture) and a hand-washing station. Both fixtures shall have a hot and cold mixing faucet.
- (2) A work counter and space for separate covered containers for soiled linen and a variety of waste types.

**2.3.8.2** Soiled holding rooms. Omission of the clinical sink and work counter shall be permitted in rooms used only for temporary holding of soiled material. If the flushing-rim clinical sink is not provided, facilities for cleaning bedpans shall be provided elsewhere.

**2.3.9 Equipment and Supply Storage****2.3.9.1 Clean linen storage**

- (1) Location of the designated area within the clean workroom, a separate closet, or an approved distribution system on each floor shall be permitted.
- (2) If a closed cart system is used, storage of clean linen carts in an alcove shall be permitted. This cart storage must be out of the path of normal traffic and under staff control.

**2.3.9.2** Equipment storage room or alcove. Appropriate room(s) or alcove(s) shall be provided for storage of equipment necessary for patient care and as required by the functional program. Each unit shall provide sufficient storage area(s) located on the patient floor to keep its required corridor width free of all equipment and supplies, but not less than 10 square feet (0.93 square meters) per patient bed shall be provided.

**2.3.9.3** Storage space for stretchers and wheelchairs. Space shall be provided in a strategic location, without restricting normal traffic.

**2.3.9.4** Emergency equipment storage. Space shall be provided for emergency equipment that is under

direct control of the nursing staff, such as a cardiopulmonary resuscitation (CPR) cart. This space shall be located in an area appropriate to the functional program but out of normal traffic.

**2.3.10 Housekeeping Room**

**2.3.10.1** Housekeeping rooms shall be directly accessible from the unit or floor they serve and may serve more than one nursing unit on a floor.

**2.3.10.2** In nursing locations, at least one housekeeping room per floor shall contain a service sink or floor receptor and provisions for storage of supplies and housekeeping equipment.

**2.4 Support Areas for Staff****2.4.1 Staff Lounge Facilities**

Lounge facilities shall be sized per the functional program but shall not be less than 100 square feet (9.29 square meters).

**2.4.2 Staff Toilet Room(s)**

These shall be conveniently located for staff use and may be unisex.

**2.4.3 Staff Storage Facilities**

**2.4.3.1** Securable closets or cabinet compartments for the personal articles of nursing personnel shall be located in or near the nurse station. At a minimum, they shall be large enough for purses and billfolds.

**2.4.3.2** If coat storage is provided, coats may be stored in closets or cabinets on each floor or in a central staff locker area.

**3 Nursing Locations****3.1 Medical/Surgical Nursing Units**

Each medical and surgical nursing unit shall include the following (see Sections 1.1-1.3.5 and 1.1-3 for waiver of standards where existing conditions make absolute compliance impractical):

**Note:** See other sections of this document for special care areas or units such as recovery rooms, critical care units, pediatric units, rehabilitation units, and skilled nursing care or other specialty units.

## 2.1 GENERAL HOSPITALS

### 3.1.1 Typical Patient Rooms

Each patient room shall meet the following standards:

#### 3.1.1.1 Capacity

- (1) In new construction, the maximum number of beds per room shall be one unless the functional program demonstrates the necessity of a two-bed arrangement. Approval of a two-bed arrangement shall be obtained from the licensing authority.
- (2) Where renovation work is undertaken and the present capacity is more than one patient, maximum room capacity shall be no more than the present capacity, with a maximum of four patients.

**3.1.1.2 Space requirements.** Minor encroachments, including columns and hand-washing stations, that do not interfere with functions may be ignored when determining space requirements for patient rooms.

- \* (1) Area. In new construction, patient rooms shall be constructed to meet the needs of the functional program and have a minimum of 100 square feet (9.29 square meters) of clear floor area per bed in multiple-bed rooms and 120 square feet (11.15

#### APPENDIX

**A3.1.1.2 (1)** In new construction, single patient rooms should be at least 12 feet (3.66 meters) wide by 13 feet (3.96 meters) deep (or approximately 160 square feet, or 14.86 square meters) exclusive of toilet rooms, closets, lockers, wardrobes, alcoves, or vestibules. These spaces should accommodate comfortable furniture for family members (one or two) without blocking access of staff members to patients. Efforts should be made to provide the patient with some control of the room environment.

**A3.1.1.3** Windows are important for the psychological well-being of many patients, as well as for meeting fire safety code requirements. They are also essential for continued use of the area in the event of mechanical ventilation system failure.

**A3.1.1.5** Where renovation work is undertaken, every effort should be made to meet this standard. Where space does not permit the installation of an additional hand-washing station in the patient room, or where it is technically infeasible, the authority having jurisdiction may grant approval of alternative forms of hand cleansing.

square meters) of clear floor area in single-bed rooms, exclusive of toilet rooms, closets, lockers, wardrobes, alcoves, or vestibules.

- (2) Dimensions and clearances. The dimensions and arrangement of rooms shall be such that there is a minimum of 3 feet (91.44 centimeters) between the sides and foot of the bed and any wall or any other fixed obstruction. In multiple-bed rooms, a clearance of 4 feet (1.22 meters) shall be available at the foot of each bed to permit the passage of equipment and beds. (See "bed size" in the glossary.)
- (3) Renovation. Where renovation work is undertaken, every effort shall be made to meet the above minimum standards. If it is not possible to meet the above minimum standards, the authorities having jurisdiction shall be permitted to grant approval to deviate from this requirement. In such cases, patient rooms shall have no less than 80 square feet (7.43 square meters) of clear floor area per bed in multiple-bed areas and 100 square feet (9.29 square meters) of clear floor area in single-bed rooms exclusive of the spaces previously noted in this section.

\***3.1.1.3 Windows.** Each patient room shall have a window in accordance with Section 2.1-8.2.2.5.

**3.1.1.4 Patient privacy.** In multiple-bed rooms, visual privacy from casual observation by other patients and visitors shall be provided for each patient. The design for privacy shall not restrict patient access to the entrance, hand-washing station, or toilet.

\***3.1.1.5 Hand-washing stations.** These shall be provided to serve each patient room.

- (1) A hand-washing station shall be located in the toilet room.
- (2) A hand-washing station shall be provided in the patient room in addition to that in the toilet room. This shall be located outside the patient's cubicle curtain and convenient to staff entering and leaving the room.
- (3) A hand sanitation station in patient rooms utilizing waterless cleaners may be used in renovation

of existing facilities where existing conditions prohibit an additional hand-washing station.

**3.1.1.6 Toilet rooms.** Toilet rooms shall be provided in accordance with Section 2.1-2.2.1.

**3.1.1.7 Patient storage locations.** Patient storage shall be provided in accordance with Section 2.1-2.2.2.

**\*3.1.2 Patient/Family-Centered Care Rooms**

**3.1.3 Examination/Treatment Room(s)**

Omission of such rooms shall be permitted if all patient rooms in the nursing unit are single-bed rooms.

**3.1.3.1 Location.** Centrally located examination and treatment room(s) shall be permitted to serve more than one nursing unit on the same floor.

**3.1.3.2 Space requirements.** Such rooms shall have a minimum floor area of 120 square feet (11.15 square meters).

**3.1.3.3 Patient privacy.** Provision shall be made to preserve patient privacy from observation from outside the exam room through an open door.

**3.1.3.4 Facility requirements.** The room shall contain a hand-washing station; storage facilities; and a desk, counter, or shelf space for writing.

**3.1.4 Support Areas—General**

**3.1.4.1** The size and location of each support area shall depend on the numbers and types of beds served.

**3.1.4.2 Location**

- (1) Provision for the support areas listed shall be in or readily available to each nursing unit.
- (2) Each support area may be arranged and located to serve more than one nursing unit; however, unless otherwise noted, at least one such support area shall be provided on each nursing floor.

**3.1.4.3** Identifiable spaces are required for each of the indicated functions. Where the words room or office are used, a separate, enclosed space for the one named function is intended; otherwise, the described area may be a specific space in another room or common area.

**3.1.5 Support Areas for Medical/Surgical Nursing Units**

**\*3.1.5.1 Administrative center(s) or nurse station(s).**

This area shall be provided in accordance with Section 2.1-2.3.1.

**3.1.5.2 Documentation area.** This area shall be provided on the unit in accordance with Section 2.1-2.3.2.

**3.1.5.3 Nurse or supervisor office**

**\*3.1.5.4 Multipurpose room(s).** Room(s) shall be provided for patient conferences, reports, education, training sessions, and consultation in accordance with Section 2.1-2.3.3.

**3.1.5.5 Hand-washing stations**

- (1) In nursing locations, hand-washing stations shall be conveniently accessible to the nurse station, medication station, and nourishment area.

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**A3.1.2 Patient/Family-Centered Care Rooms**

Where a facility contemplates patient/family-centered care rooms, the rooms should be constructed to meet the needs of the functional program.

**a. Capacity.** Patient/family-centered rooms should be single-bed rooms.

**b. Area and dimensions.** These rooms should have a minimum of 250 square feet (23.22 square meters) of clear floor area exclusive of family alcoves, toilet rooms, closets, lockers, wardrobes, vestibules, staff charting areas, or staff hand-washing stations, with a minimum clear dimension of 15 feet (4.57 meters).

**c. Additional area.** Additional areas should be provided at a minimum clear area of 30 square feet (2.79 square meters) per family member (permitted by the facility).

**d. Environment of care.** Consideration for a homelike atmosphere, furniture arrangements, and orientation to the patient bed and room windows should reflect the needs of the functional program.

**A3.1.5.1** The station should permit visual observation of all traffic into the unit.

**A3.1.5.4** Multipurpose rooms are used primarily for staff purposes and generally are not available for family or visitors. A waiting room convenient to the unit should be provided.

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- (2) If it is convenient to each, one hand-washing station shall be permitted to serve several areas.

3.1.5.6 Medication station. Provision shall be made for distribution of medications in accordance with Section 2.1-2.3.4.

3.1.5.7 Nourishment area. This area shall be provided in accordance with Section 2.1-2.3.5.

3.1.5.8 Ice machine. Each nursing unit shall have equipment to provide ice for treatments and nourishment. Ice-making equipment shall be provided in accordance with Section 2.1-2.3.6.

### 3.1.5.9 Patient bathing facilities

- (1) Showers and bathtubs
  - (a) Where individual bathing facilities are not provided in patient rooms, there shall be at least one shower and/or bathtub for each 12 beds without such facilities.
  - (b) Each bathtub or shower shall be in an individual room or enclosure that provides privacy for bathing, drying, and dressing.
- (2) Toilets. A toilet shall be provided within or directly accessible to each central bathing facility.
- (3) Special bathing facilities, including space for attendant, shall be provided for patients on stretchers, carts, and wheelchairs at the ratio of one per 100 beds or a fraction thereof. These facilities may be on a separate floor if convenient for use.

3.1.5.10 Clean workroom or clean supply room. Such rooms shall be provided in accordance with Section 2.1-2.3.7.

3.1.5.11 Soiled workroom or soiled holding room. Such rooms shall be provided in accordance with Section 2.1-2.3.8.

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A3.1.5.13 A storage or bin space should be included for recyclable materials: white paper, mixed paper, cans, bottles, and cardboard.

### 3.1.5.12 Equipment and supply storage

- (1) Clean linen storage. Each nursing unit shall contain a designated area for clean linen storage in accordance with Section 2.1-2.3.9.1.
- (2) Equipment storage room or alcove. Appropriate room(s) or alcove(s) shall be provided in accordance with Section 2.1-2.3.9.2.
- (3) Storage space for stretchers and wheelchairs. Space shall be provided in accordance with Section 2.1-2.3.9.3.
- (4) Emergency equipment storage. Storage shall be provided for emergency equipment in accordance with Section 2.1-2.3.9.4.

\*3.1.5.13 Housekeeping room. One housekeeping room shall be provided for each nursing unit or nursing floor in accordance with Section 2.1-2.3.10.

Note: This housekeeping room may not be used for other departments and nursing units that require separate housekeeping rooms.

### 3.1.6 Support Areas for Staff

3.1.6.1 Staff lounge facilities. Lounge facilities shall be provided in accordance with Section 2.1-2.4.1.

3.1.6.2 Staff toilet room(s). Staff toilet rooms shall be provided in accordance with Section 2.1-2.4.2.

3.1.6.3 Staff storage facilities. Storage facilities for the personal use of staff shall be provided in accordance with Section 2.1-2.4.3.

### 3.1.7 Support Areas for Patients and Visitors

3.1.7.1 Visitor lounge. Each nursing unit shall have access to a lounge for visitors and family.

- (1) This lounge shall be sized appropriately for the number of beds and/or nursing units served per the functional program.
- (2) This lounge shall be conveniently located to the nursing unit(s) served.
- (3) This lounge shall provide comfortable seating.

- (4) This lounge shall be designed to minimize the impact of noise and activity on patient rooms and staff functions.

**3.1.7.2 Toilet room(s).** A toilet room(s) with hand-washing station shall be located convenient to multipurpose room(s).

- (1) Patient use. If the functional program calls for the toilet room(s) to be for patient use, it shall be designed/equipped for patient use.
- (2) Public use. If called out in the functional program, the toilet room(s) serving the multipurpose rooms(s) may also be designated for public use.

### 3.2 Special Patient Care Areas

#### 3.2.1 Applicability

As designated by the functional program, both airborne infection isolation and protective environment rooms may be required. Many facilities care for patients with an extreme susceptibility to infection (e.g., immunosuppressed patients with prolonged granulocytopenia, most notably bone marrow recipients, or solid-organ transplant recipients and patients with hematological malignancies who are receiving chemotherapy and are severely granulocytopenic). These rooms are not intended for use with patients diagnosed with HIV infection or AIDS, unless they are also severely granulocytopenic. Generally, protective environments are not needed in community hospitals, unless these facilities take care of these types of patients.

#### \*3.2.2 Airborne Infection Isolation Room(s)

The airborne infection isolation room requirements contained in these Guidelines for particular areas throughout a facility should be predicated on an infection control risk assessment (ICRA) and based on the needs of specific community and patient populations served by an individual health care provider (see Glossary and Section 1.5-2.3).

**3.2.2.1 Number.** At least one airborne infection isolation room shall be provided in the hospital. The number of airborne infection isolation rooms for individual patient units shall be increased based upon an ICRA or by a multidisciplinary group designated for

that purpose. This process ensures a more accurate determination of environmentally safe and appropriate room types and spatial needs. Special ventilation requirements are found in Table 2.1-2.

**3.2.2.2 Location.** Airborne infection isolation rooms may be located within individual nursing units and used for normal acute care when not required for patients with airborne infectious diseases, or they may be grouped as a separate isolation unit.

**3.2.2.3 Capacity.** Each room shall contain only one bed.

**3.2.2.4 Facility requirements.** Each airborne infection isolation room shall comply with the acute care patient room section (Section 2.1-3.1.1) of this document as well as the following requirements:

- (1) Each room shall have an area for hand-washing, gowning, and storage of clean and soiled materials located directly outside or immediately inside the entry door to the room.
- (2) Construction requirements
  - (a) Airborne infection isolation room perimeter walls, ceiling, and floors, including penetrations, shall be sealed tightly so that air does not infiltrate the environment from the outside or from other spaces. (See Glossary.)
  - (b) Airborne infection isolation room(s) shall have self-closing devices on all room exit doors.
- (3) Separate toilet, bathtub (or shower), and hand-washing stations shall be provided for each airborne infection isolation room.
- \* (4) Rooms shall have a permanently installed visual mechanism to constantly monitor the pressure

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**A3.2.2** For additional information, refer to the Centers for Disease Control and Prevention (CDC) "Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Health Care Facilities" as they appear in the *Federal Register* dated October 28, 1994, and to the CDC "Guidelines for Environmental Infection Control in Health-Care Facilities," December 2003.

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status of the room when occupied by patients with an airborne infectious disease. The mechanism shall continuously monitor the direction of the airflow.

### \*3.2.3 Protective Environment Room(s)

The differentiating factor between protective environment rooms and other patient rooms is the requirement for positive air pressure relative to adjoining spaces, with all supply air passing through high-efficiency particulate air (HEPA) filters with 99.97 percent efficiency for particles  $> 0.3 \mu\text{m}$  in diameter.

**3.2.3.1 Applicability.** When determined by an ICRA, special design considerations and ventilation to ensure the protection of patients who are highly susceptible to infection shall be required.

**3.2.3.2 Functional program.** The appropriate clinical staff shall be consulted regarding room type, and spatial needs to meet facility infection control requirements shall be incorporated into the functional program.

**3.2.3.3 Number and location.** The appropriate numbers and location of protective environment rooms shall be as required by the ICRA.

**3.2.3.4 Capacity.** Protective environment rooms shall contain only one bed.

**3.2.3.5 Facility requirements.** Protective environment rooms shall comply with Section 2.1-3.2.2. Special ventilation requirements are found in Table 2.1-2.

- (1) Each protective environment room shall have an area for hand-washing, gowning, and storage of clean and soiled materials located directly outside or immediately inside the entry door to the room.
- (2) Patient bathing and toilet facilities. Separate toilet, bathtub (or shower), and hand-washing stations shall be directly accessible from each protective environment room.
- (3) Monitoring equipment. Rooms shall have a permanently installed visual mechanism to constantly monitor the pressure status of the room when occupied by patients requiring a protective environment. The mechanism shall continuously monitor the direction of the airflow.
- (4) Construction requirements
  - (a) Protective environment room perimeter walls, ceiling, and floors, including penetrations,

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**A3.2.2.4 (4)** In general, reliance on a substantial pressure differential ( $> 0.01 \text{ }^{\circ}\text{wg}/12.5\text{Pa}$ ) will maintain the appropriate directional airflow with or without an anteroom. The anteroom concept should remain an option (i.e., not required).

a. Anterooms, in general, should be designed to meet local fire safety code as well as to prevent air from the patient room from escaping to the corridor or other common areas.

b. In addition to the concept of containment of airborne microorganisms, anterooms may appropriately be used for storage of personal protective equipment (PPE) (e.g., respirators, gowns, gloves), clean equipment, and hand hygiene.

c. In ganged anterooms (two patient rooms with a common anteroom), it may be difficult to maintain directional airflow and pressure differential intended to avoid contamination from one room to the other through the anteroom. The design, installation, and monitoring of ventilation systems in such configurations is of utmost importance.

**A3.2.3** Immunosuppressed host airborne infection isolation (protective environment/airborne infection isolation)

a. Having a protective environment is not a minimum requirement. Facilities with protective environment rooms should include at least one immunosuppressed host airborne infection isolation room.

b. An anteroom is required for the special case in which an immunosuppressed patient requires airborne infection isolation. See Section 2.1-3.2.1 for more information.

c. There is no prescribed method for anteroom ventilation—the room can be ventilated with either of the following airflow patterns: (1) airflows from the anteroom, to the patient room and the corridor, or (2) airflows from the patient room and the corridor, into the anteroom. The advantage of pattern (1) is the provision for a clean anteroom in which health care workers need not mask before entering the anteroom.

shall be sealed tightly so that air does not infiltrate the environment from the outside or from other spaces.

- (b) Protective environment room(s) shall have self-closing devices on all room exit doors.
- (5) Renovation. See references to protective environment rooms during renovation and construction in Section 1.5-2.2.

\*3.2.3.6 Bone marrow transplant units. Rooms in allogeneic bone marrow transplant units shall be designed to meet specific patient needs.

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### A3.2.3.6 Bone marrow transplant facilities

General space and staffing requirements are critical for bone marrow transplant facilities. Patients in these units may be acutely aware of the surrounding environment, which is their life support system during the many weeks they are confined in an immunosuppressed condition. Means of controlling unnecessary noise are important. At times, each patient may require individual privacy, although each is required to be under close staff supervision.

- a. Location. Bone marrow transplant rooms should be located to have access within the hospital to out-of-unit diagnostic and treatment equipment, particularly radiation therapy equipment.
- b. All bone marrow transplant-designated beds should be in exceptionally clean environments, which should consist of protective environment rooms equipped with HEPA filtration, preferably located close to each other.
- c. A countertop with scrub sink and space for high-level disinfection procedures should be available outside the entrance to each patient room when located within the nursing unit or at each entrance to a dedicated bone marrow transplant room. A hand-washing station should be accessible near the entrance to each patient room within a dedicated bone marrow transplant unit.
- d. Toilet and bathing facilities. Each bone marrow transplant patient room should have a private toilet room, which contains a water closet and a bathing facility, for the exclusive use of the patient. The patient should be able to enter the room directly without leaving the patient room or passing through the vestibule. The patient should also have a lavatory for the patient's exclusive use, located in the patient room or the private toilet room.

### 3.2.4 Seclusion Room(s)

3.2.4.1 Applicability. If indicated by the functional program, the hospital shall provide one or more single-bed rooms for patients needing close supervision for medical and/or psychiatric care.

3.2.4.2 Location. These rooms may be part of the psychiatric unit described in Section 2.1-3.8.

3.2.4.3 Facility requirements. If the single-bed room(s) is part of the acute care nursing unit, the provisions of Section 2.1-3.8.2 shall apply, with the following exceptions:

- (1) Each room shall be for single occupancy.

e. Patients should be housed in single-bed rooms with full-height partitions, sealed airtight to the structure to prevent cross-infections.

f. All surfaces, floors, walls, ceilings, doors, windows, and curtains in the patient room should be scrubbable.

g. Windows should be provided so that each patient may be cognizant of the outdoor environment. Windowsill height should not exceed 3 feet (0.91 meter) above the floor and should be above grade. All windows in the unit should be fixed sash and sealed to eliminate infiltration.

h. Viewing panels should be provided in doors or walls for nursing staff observation. Flame-retardant curtains or other means should be provided to cover windows and viewing panels when a patient requires visual privacy. Glazing should be safety glass, wire glass, or tempered clear plastic to reduce hazards from accidental breakage.

i. Nurse and emergency call systems. Each patient room should be provided with a nurse call system accessible at the bed, sitting area, and patient toilet room. An emergency call system should also be provided at each patient bed and toilet room to summon additional personnel from on-call rooms, consultation rooms, and staff lounges.

j. Facilities for administration of suction, compressed air, and oxygen should be provided at the bed.

k. Staff and visitor support areas. Each geographically distinct unit should provide appropriate space to support nurses' administrative activities, report/conference room activities, doctors' consultation, drug preparation and distribution, emergency equipment storage, and closed accessible waiting for family members.

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- (2) Each room shall be located to permit staff observation of the entrance, preferably adjacent to the nurse station.
- (3) Each room shall be designed to minimize the potential for escape, concealment, injury, or suicide.
- (4) If vision panels are used for observation of patients, the arrangement shall ensure patient privacy and prevent casual observation by visitors and other patients.

### \*3.2.5 Protected Units

### 3.3 Intermediate Care Units

Intermediate care units, sometimes referred to as step-down units, are routinely utilized in acute care hospitals for patients who require frequent monitoring of vital signs and/or nursing intervention that exceeds the level needed in a regular medical/surgical unit but is less than that provided in a critical care unit.

#### 3.3.1 General

3.3.1.1 Classification. Intermediate care units can be progressive care units or specialty units such as cardiac, surgical (e.g., thoracic, vascular), neurosurgical/neurological monitoring, or chronic ventilator respiratory care units.

3.3.1.2 Applicability. These standards shall apply to adult beds designated to provide intermediate care, but not pediatric or neonatal intermediate care.

3.3.1.3 Location. In hospitals that provide intermediate care, beds shall be designated for this purpose. These

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### A3.2.5 Protected Units

The purpose of this section is to lend guidance in the design of units that by their very nature require a protected environment for the treatment and care of their patients. The following units fall within this intended guidance, although this list is not inclusive: transplant units, burn units, nurseries, units for immunosuppressed populations, and neonatal intensive care units. Portions of emergency departments where the initial triage occurs may be incorporated as part of the triage service while an assessment of potential infection and contamination is made prior to processing the suspected patient. Consideration for appropriate pressurization and air exchange rates to control contamination should be addressed.

beds shall be permitted to constitute a separate unit or be a designated part of another unit.

3.3.1.4 Nurse management space. There shall be a separate physical area devoted to nursing management for the care of the intermediate patient.

#### 3.3.2 Patient Rooms

The following shall apply to all intermediate care units unless otherwise noted.

##### 3.3.2.1 Capacity

Maximum room capacity shall be four patients.

3.3.2.2 Space requirements. Minor encroachments, including columns and hand-washing stations, that do not interfere with functions may be ignored when determining space requirements for patient rooms.

- (1) Area. In new construction, patient rooms shall be constructed to meet the needs of the functional program and have a minimum of 120 square feet (11.15 square meters) of clear floor area per bed in multiple-bed rooms and 150 square feet (13.94 square meters) of clear floor area for single-bed rooms, exclusive of toilet rooms, closets, lockers, wardrobes, alcoves, or vestibules.
- (2) Clearances. In new construction, the dimensions and arrangement of rooms shall be such that there is a minimum clearance of 4 feet (1.22 meters) between the sides of the beds and other beds, walls, or fixed obstructions. A minimum clearance of 4 feet (1.22 meters) shall be available at the foot of each bed to permit the passage of equipment and beds.
- (3) Renovation. Where renovation work is undertaken, every effort shall be made to meet these standards. If it is not possible to meet these minimum standards, the authorities having jurisdiction may grant approval to deviate from this requirement. In such cases, patient rooms shall have no less than 100 square feet (9.29 square meters) of clear floor area per bed in multiple-bed rooms and 120 square feet (11.15 square meters) of clear floor area in single-bed rooms.

3.3.2.3 Windows. Each patient room shall have a window in accordance with Section 2.1-8.2.2.5.

**3.3.2.4 Patient privacy.** In multiple-bed rooms, visual privacy shall be provided for each patient. The design for privacy shall not restrict patient access to the room entrance, lavatory, toilet, or room windows.

**3.3.2.5 Nurse call systems.** Nurse call systems for two-way voice communication shall be provided in accordance with Section 2.1-10.3.8. The call system for the unit shall include provisions for an emergency code resuscitation alarm to summon assistance from outside the intermediate care unit.

**3.3.2.6 Hand-washing stations.** These shall be provided to serve each patient room.

- (1) In new construction and renovation, a hand-washing station shall be provided in the patient room in addition to that in the toilet room.
- (2) The hand-washing station in the patient room shall be located outside the patient's cubicle curtain so it is convenient to staff entering and leaving the room.

**3.3.2.7 Toilet rooms.** Toilet rooms shall be provided in accordance with Section 2.1-2.2.1.

**3.3.2.8 Bathing facilities.** Patients shall have access to bathing facilities within their rooms or in a central bathing facility.

- (1) Each shower or bathtub in a central bathing facility shall be in an individual room or enclosure that provides privacy for bathing, drying, and dressing.
- (2) A water closet and lavatory in a separate enclosure shall be directly accessible to each central bathing facility.

**3.3.2.9 Patient storage.** Storage locations for patient use shall be provided in accordance with Section 2.1-2.2.2.

### **3.3.3 Airborne Infection Isolation Room**

Access to at least one airborne infection isolation room shall be provided unless provided elsewhere in the facility. The number of airborne infection isolation rooms shall be determined on the basis of an infection control risk assessment (ICRA). Each room shall comply

with the requirements of Section 2.1-3.2.2. Special ventilation requirements are found in Table 2.1-2.

### **3.3.4 Support Areas—General**

**3.3.4.1** Provision for the support areas listed below shall be in or readily available to each intermediate care unit.

**3.3.4.2** The size and location of each staff support area shall depend upon the numbers and types of beds served.

**3.3.4.3** Identifiable spaces are required for each of the indicated functions. Where the words "room" or "office" are used, a separate, enclosed space for the one named function is intended; otherwise, the described area may be a specific space in another room or common area.

**3.3.4.4** Services shared with adjacent units shall be permitted.

### **3.3.5 Support Areas for Intermediate Care Units**

#### **3.3.5.1 Administrative center or nurse station**

- (1) An administrative center or nurse station shall be provided in accordance with Section 2.1-2.3.1.
- (2) There shall be direct or remote visual observation between the administrative center or nurse station, staffed charting stations, and all patient beds in the unit.

**3.3.5.2 Documentation area.** This area shall be provided within the patient unit in accordance with Section 2.1-2.3.2.

**3.3.5.3 Medication station.** Provision shall be made for 24-hour distribution of medications in accordance with Section 2.1-2.3.4.

#### **3.3.5.4 Hand-washing stations**

- (1) In nursing locations, hand-washing stations shall be conveniently accessible to the nurse station, medication station, and nourishment area.
- (2) If it is convenient to each, one hand-washing station shall be permitted to serve several areas.

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**3.3.5.5 Nourishment area.** There shall be a nourishment area with a work counter, a hand-washing station, a refrigerator, storage cabinets, and equipment for preparing and serving hot and cold nourishments between scheduled meals.

**3.3.5.6 Ice machine.** A self-dispensing ice machine shall be provided to supply ice for treatments and nourishment.

**3.3.5.7 Clean workroom or clean supply room.** This room shall be provided in accordance with Section 2.1-2.3.7.

**3.3.5.8 Soiled workroom or soiled holding room.** This room shall be provided in accordance with Section 2.1-2.3.8.

**3.3.5.9 Equipment and supply storage**

(1) Equipment storage room. An equipment storage room shall be provided for storage of equipment necessary for patient care.

(a) This room shall be permitted to serve more than one unit.

(b) Each unit shall provide sufficient storage area(s) located on the patient floor to keep its required corridor width free of all equipment and supplies, but not less than 20 square feet (1.86 square meters) per patient bed shall be provided.

(2) Emergency equipment storage. This shall be provided in accordance with Section 2.1-2.3.9.4.

**3.3.5.10 Housekeeping room.** This room shall be provided in accordance with Section 2.1-2.3.10.

**3.3.6 Support Areas for Staff**

**3.3.6.1 Staff lounge facilities.** Staff lounge facilities shall be provided in accordance with Section 2.1-2.4.1.

(1) The location of these facilities shall be convenient to the intermediate care unit.

(2) These facilities may be shared with other nursing unit(s).

**3.3.6.2 Staff toilet room(s).** These shall be provided in accordance with Section 2.1-2.4.2.

**3.3.6.3 Staff storage facilities.** Storage facilities for personal use of the staff shall be provided in accordance with Section 2.1-2.4.3.

### 3.4 Critical Care Units

#### 3.4.1 General Considerations

##### 3.4.1.1 Applicability

(1) The following standards are intended for typical critical care services. Design of critical care units shall comply with these standards and shall be appropriate to the needs of the functional program.

(2) Where specialized services are required, additions and/or modifications shall be made as necessary for efficient, safe, and effective patient care.

**3.4.1.2 Environment of care.** Critical care units require special space and equipment considerations for safe and effective patient care, staff functions, and family participation. Families and visitors to critical care units often wait for long periods, including overnight, under highly stressful situations. They tend to congregate at unit entries to be readily accessible to staff interaction. Clinical personnel perform in continuously stressful circumstances over long hours. Often they cannot leave the critical care unit, necessitating space and services to accommodate their personal and staff group needs in close proximity to the unit. Design shall address such issues as privacy, atmosphere, and aesthetics for all involved in the care and comfort of patients in critical care units.

**3.4.1.3 Functional program.** Not every hospital will provide all types of critical care. Some hospitals may have a small combined unit; others may have separate, sophisticated units for highly specialized treatments. Critical care units shall comply in size, number, and type with these standards and with the functional program.

**3.4.1.4 Unit location.** The following shall apply to all types of critical care units unless otherwise noted.

(1) The location shall offer convenient access from the emergency, respiratory therapy, laboratory,

radiology, surgery, and other essential departments and services as defined by the functional program.

- (2) The unit shall be located so that medical emergency resuscitation teams can respond promptly to emergency calls with minimum travel time.
- (3) Space arrangement shall include provisions for access to emergency equipment from other departments.
- (4) The location shall be arranged to eliminate the need for through traffic.

**\*3.4.1.5 Elevator considerations.** In new construction, where elevator transport is required to move critically ill patients, the size of the cab, door width, and mechanisms and controls shall meet the specialized needs.

**\*3.4.2 Critical Care Units (General)**

The following shall apply to all types of critical care units unless otherwise noted.

**\*3.4.2.1 Patient care areas**

- (1) Space requirements for new construction

- (a) Area. Each patient space (whether separate rooms, cubicles, or multiple-bed space) shall have a minimum of 200 square feet (18.58 square meters) of clear floor area with a minimum headwall width of 13 feet (3.96 meters) per bed, exclusive of anterooms, vestibules, toilet rooms, closets, lockers, wardrobes, and/or alcoves.

- (b) Clearances. Bed clearances for all adult and pediatric units shall be a minimum of 5 feet (1.52 meters) at the foot of the bed to the wall, 5 feet (1.52 meters) on the transfer side, 4 feet (1.22 meters) on the non-transfer side, and 8 feet (2.44 meters) between beds.

- (2) Space requirements for renovation. In renovation of existing critical care units, every effort shall be made to meet the above minimum standards. If it is not possible to meet the above area standards, authorities having jurisdiction may grant approval to deviate from this requirement. In such cases, the following standards shall be met:

- (a) Separate rooms or cubicles for single patient use shall be no less than 150 square feet (13.94 square meters).

- (b) Multiple-bed space shall contain at least 150 square feet (13.94 square meters) of clear floor area per bed, exclusive of the spaces noted for new construction in Section 2.1-3.4.2.1 (1)(a).

- (3) Windows. Each patient bed shall have visual access, other than skylights, to the outside environment, with not less than one outside window in each patient bed area, in accordance with Section 2.1-8.2.2.5.

- (4) Privacy

- (a) When private rooms or cubicles are provided, view panels to the corridor shall be required with a means to ensure visual privacy.

- (b) Each patient bed area shall have space at each bedside for visitors and shall have provisions for visual privacy from casual observation by other patients and visitors.

- \* (5) Nurse call system

## APPENDIX

**A3.4.1.5** Transportation of patients to and from the critical care unit should ideally be separated from public corridors and visitor waiting areas.

**A3.4.2** Provision should be made for rapid and easily accessible information exchange and communication within the unit and the hospital.

**A3.4.2.1** In critical care units, the size of the patient care space should be determined by the intended functional use. The patient space in critical care units, especially those caring for surgical patients following major trauma or cardiovascular, transplant, or orthopedic procedures and those caring for medical patients simultaneously requiring ventilation, dialysis, and/or treatment with other large equipment (e.g., intra-aortic balloon pump) may be overwhelmed if designed to the absolute minimum clear floor area.

## 2.1 GENERAL HOSPITALS

- (a) Nurse call systems for two-way voice communication shall be provided in accordance with Section 2.1-10.3.8.
  - (b) The communication system for the unit shall include provisions for an emergency code resuscitation alarm to summon assistance from outside the critical care unit.
- (6) Hand-washing stations
- (a) Hand-washing stations shall be convenient to nurse stations and patient bed areas.
  - (b) There shall be at least one hand-washing station for every three beds in open plan areas and one in each patient room.
  - (c) The hand-washing station shall be located near the entrance to the patient cubicle or room, sized to minimize splashing water onto the floor, and equipped with hands-free operable controls.
  - (d) Where towel dispensers are provided, they shall operate so that dispensing requires only the towel to be touched.
- (7) Construction requirements
- (a) Doors
    - (i) Where only one door is provided to a bed space, it shall be at least 4 feet (1.22 meters) wide and arranged to minimize interference with movement of beds and large equipment.
    - (ii) Sliding doors shall not have floor tracks and shall have hardware or a breakaway feature that minimizes jamming possibilities.
  - (iii) Where sliding doors are used for access to cubicles within a suite, a 3-foot-wide (91.44 centimeters) swinging door shall be permitted for personnel communication.
- (b) Windows in renovation projects
- (i) Clerestory windows with windowsills above the heights of adjacent ceilings may be used, provided they afford patients a view of the outside and are equipped with appropriate forms of glare and sun control.
  - (ii) Distance from the patient bed to the outside window shall not exceed 50 feet (15.24 meters).
  - (iii) Where partitioned cubicles are used, patients' view to outside windows shall be through no more than two separate clear vision panels.
- (8) Design criteria for mechanical, electrical, and plumbing systems. The electrical, medical gas, heating, ventilation, and communication services shall support the needs of the patients and critical care team members under normal and emergency situations.

### 3.4.2.2 Airborne infection isolation room

- (1) At least one airborne infection isolation room shall be provided, unless provided in another critical care unit. The number of airborne infection isolation rooms shall be determined based on an ICRA.
- (2) Each room shall comply with the requirements of Section 2.1-3.2.2; however, the requirement for the bathtub (or shower) may be eliminated. Compact, modular toilet/sink combination units may replace the requirement for a "toilet room."
- (3) Special ventilation requirements are found in Table 2.1-2.

### 3.4.2.3 Diagnostic, treatment, and service areas

- (1) Special procedures room. This shall be provided if required by the functional program. It may be

## APPENDIX

**A3.4.2.1 (5).** A staff emergency assistance system should be provided on the most accessible side of the bed. The system should announce at the nurse station with backup from another staffed area from which assistance can be summoned.

located outside the critical care unit if conveniently accessible.

(2) The following shall be available. Provision of these services from the central departments or from satellite facilities shall be permitted as required by the functional program.

- (a) Imaging facilities
- (b) Respiratory therapy services
- (c) Laboratory services
- (d) Pharmacy services

3.4.2.4 Support areas for critical care units. The following shall be provided for all types of critical care units unless otherwise noted.

\* (1) Administrative center or nurse station

- (a) An administrative center or nurse station

shall be provided in accordance with Section 2.1-2.3.1.

(b) Visual observation. There shall be direct or remote visual observation between the administrative center, nurse station, or staffed charting stations and all patient beds in the critical care unit.

\* (2) Documentation and information review spaces. Space shall be provided within the unit to accommodate the recording of patient information.

\* (a) The documentation space shall be located within or adjacent to the patient bed space. It shall include countertop that will provide for a large flow sheet typical of critical care units and a computer monitor and keyboard. There shall be one documentation space with seating for each patient bed.

\* (b) There shall be a specifically designated area within the unit for information review located to facilitate concentration.

## APPENDIX

A3.4.2.4 (1). Patients should be visually observed at all times. This can be achieved in a variety of ways.

a. If a central station is chosen, it should be located to allow for complete visual control of all patient beds in the critical care unit. It should be designed to maximize efficiency in traffic patterns. Patients should be oriented so that they can see the nurse but cannot see the other patients. There should be an ability to communicate with the clerical staff without having to enter the central station.

b. If a central station is not chosen, the unit should be designed to provide visual contact between patient beds so that there can be constant visual contact between the nurse and patient.

A3.4.2.4 (2). The requirements for documenting patient information by providers have become substantial and continue to grow. A growing number of providers and others review patient records in critical care units. Confidentiality of patient information is important. Computers are increasingly used to meet these expectations.

a. Separate areas need to be designed for the unit secretary and staff charting. Planning should consider the potential volume of

staff (both medical and nursing) that could be present at any one time and translate that to adequate charting surfaces.

b. The secretarial area should be accessible to all. However, the charting areas may be somewhat isolated to facilitate concentration.

c. Storage for chart forms and supplies should be readily accessible.

d. Space for computer terminals and printer and conduit for computer hookup should be provided when automated information systems are in use or planned for the future.

e. Patient records should be readily accessible to clerical, nursing, and physician staff.

A3.4.2.4 (2)(a). Documentation space. The countertop area should be a minimum of 8 square feet (0.74 square meters). If a documentation space is to serve two patient beds, it should be a minimum of 10 square feet (0.93 square meter).

A3.4.2.4 (2)(b). Information review space. There should be a minimum of 8 square feet (0.74 square meters) of countertop and seating to accommodate two people for every five patient beds it serves.

## 2.1 GENERAL HOSPITALS

\* (3) Office space. Adequate office space for critical care medical and nursing management/administrative personnel shall be available immediately adjacent to the critical care unit. The offices shall be linked with the unit by telephone or an intercommunications system.

(4) Multipurpose room(s). Multipurpose room(s) shall be provided for staff, patients, and patients' families for patient conferences, reports, education, training sessions, and consultation. These rooms shall be accessible to each nursing unit.

\* (5) Medication station. Provision shall be made for 24-hour distribution of medications in accordance with Section 2.1-2.3.4.

\* (6) Patient monitoring equipment. Each unit shall contain equipment for continuous monitoring, with visual displays for each patient at the bedside

### APPENDIX

**A3.4.2.4 (3).** The offices should be large enough to permit consulting with members of the critical care team and visitors.

**A3.4.2.4 (5).** To minimize distraction of those preparing medications, the area should be enclosed. A glass wall or walls may be advisable to permit observation of patients and unit activities. A self-contained medicine-dispensing unit may be located at the nurse station, in the clean workroom, in an alcove, or in another area directly under visual control of nursing or pharmacy staff.

**A3.4.2.4 (6).** The unit should provide the ability to continuously monitor the physiological parameters appropriate for the types of patients the unit is expected to care for.

**A3.4.2.4 (12)(b).** Equipment storage room or alcove

a. The location of the equipment storage room or alcove should not interfere with the flow of traffic.

b. Work areas and storage of critical care supplies should be readily accessible to nursing and physician staff.

c. Shelving, file cabinets, and drawers should be accessible to all requiring use.

d. Electrical outlets should be provided in sufficient numbers to permit recharging stored battery-operated equipment.

e. Alcoves should be provided for the storage and rapid retrieval of crash carts and portable monitor/defibrillator units.

and at the nurse station. Monitors shall be located to permit easy viewing and access but shall not interfere with access to the patient.

(7) X-ray viewing facility. The unit shall have an x-ray viewing facility, which may be shared by more than one critical care unit provided direct access is available from each.

(8) Nourishment area. This area shall be provided in accordance with Section 2.1-2.3.5. It shall be immediately available within each critical care suite. More than one critical care unit shall be permitted to share this area provided direct access is available from each.

(9) Ice machine. This equipment shall be provided in accordance with Section 2.1-2.3.6.

(10) Clean workroom or clean supply room.

(a) This room shall be provided in accordance with Section 2.1-2.3.7.

(b) This room shall be immediately available in each critical care suite. More than one critical care unit shall be permitted to share a clean workroom or clean supply room provided direct access is available from each.

(11) Soiled workroom or soiled holding room.

(a) This room shall be provided in accordance with Section 2.1-2.3.8.

(b) It shall be immediately available in each critical care suite, but more than one critical care unit shall be permitted to share the room provided direct access is available from each.

(12) Equipment and supply storage

(a) Clean linen storage. This shall be provided in accordance with Section 2.1-2.3.9.1. This area shall be immediately available within each critical care suite. More than one critical care unit shall be permitted to share the room provided direct access is available from each.

\* (b) Equipment storage room or alcove

- (i) Appropriate room(s) or alcove(s) shall be provided in accordance with Section 2.1-2.3.9.2.
  - (ii) Each critical care unit shall have sufficient storage area(s) located on the patient floor to keep the required corridor width free of all equipment and supplies. No less than 20 square feet (1.86 square meters) per patient bed shall be provided for equipment storage.
  - (c) Wheelchair and stretcher storage. Space to store stretchers and wheelchairs shall be provided in accordance with Section 2.1-2.3.9.3.
  - (d) Emergency equipment storage. Space shall be provided in accordance with Section 2.1-2.3.9.4.
- (13) Housekeeping room. A housekeeping room shall be provided within or immediately adjacent to the critical care unit.
- (a) This room shall not be shared with other nursing units or departments.
  - (b) It shall contain a service sink or floor receptor and provisions for storage of supplies and housekeeping equipment.

3.4.2.5 Support areas for staff. The following shall be provided for all types of critical care units unless otherwise noted.

- (1) Staff lounge(s) and toilet(s). The following may be located outside the unit if conveniently accessible.
  - (a) These shall be located so that staff may be recalled quickly to the patient area in emergencies.
  - (b) The lounge shall have telephone or intercom and emergency code alarm connections to the critical care unit it serves.
  - (c) If not provided elsewhere, provision for the storage of coats, etc., shall be made in this area.

- (d) Adequate furnishings, equipment, and space for comfortable seating and the preparation and consumption of snacks and beverages shall be provided unless provisions have been made elsewhere.
- (e) One lounge shall be permitted to serve adjacent critical care areas.
- (2) Staff storage facilities. Facilities for personal use of staff shall be provided in accordance with Section 2.1-2.4.3.
- (3) Staff accommodations. Sleeping and personal care accommodations shall be provided for staff on 24-hour, on-call work schedules.

#### 3.4.2.6 Support areas for visitors

The following shall be provided and may be located outside the unit if conveniently accessible.

- (1) Visitor waiting room
  - (a) This room shall be designed to accommodate the long stays and stressful conditions common to such spaces, including provisions for privacy, means to facilitate communications, and access to toilets.
  - (b) The locations and size shall be appropriate for the number of patients and units served, with a seating capacity of not less than one family member per patient bed.

#### 3.4.3 Coronary Care Unit

Coronary patients have special needs. They are often fully aware of their surroundings but still need immediate and critical emergency care. In addition to the standards in Section 2.1-3.4.2, the following standards apply to the coronary critical care unit:

3.4.3.1 Each coronary patient shall have a separate room for acoustical and visual privacy.

3.4.3.2 Each coronary patient shall have access to a toilet in the room. Portable commodes shall be permitted in lieu of individual toilets, but provisions must be made for their storage, servicing, and odor control.

## 2.1 GENERAL HOSPITALS

### 3.4.4 Combined Medical/Surgical Critical Care and Coronary Care

If medical/surgical and coronary critical care services are combined in one critical care unit, at least 50 percent of the beds shall be located in private rooms or cubicles.

### 3.4.5 Pediatric Critical Care

Critically ill pediatric patients have unique physical and psychological needs.

#### 3.4.5.1 General

- (1) Applicability. The standards previously set forth for a general critical care unit (Section 2.1-3.4.2) shall apply to a pediatric critical care unit.
- (2) Functional program. If a facility has a specific pediatric critical care unit, the functional program shall include consideration for staffing, isolation, transportation, life support, and environmental systems.

3.4.5.2 Patient care areas. A pediatric critical care unit shall provide the following:

- (1) Space requirements

## APPENDIX

**A3.4.5.2 (1)(b)** Parent sleeping accommodations should be provided at the patient's bedside.

**A3.4.5.2 (3)(a)** Formula storage may be outside the unit but should be available for use at all times. The functional program should determine the location and size of formula storage.

**A3.4.5.2 (3)(c)** Space allowances for pediatric beds and cribs are greater than those for adult beds because of the variation in bed/crib sizes and the potential for change. The functional program may determine that general storage be provided in the pediatric critical care unit above the minimum required under Section 2.1-3.4.2.4 (12)(b).

**A3.4.5.3** The number and location of examination/treatment rooms should be based on the functional program.

**A3.4.6.1 (1)(a)** There should be efficient access to the unit from the labor and delivery area and emergency department or other referral entry points.

(a) Space at each bedside for families and visitors in addition to the space provided for staff. The space provided for parental accommodations as defined by the functional program shall not limit or encroach upon the minimum clearance requirements for staff and medical equipment around the patient's bed station.

\*(b) Sleeping space for parents who may be required to spend long hours with the patient. If the sleeping area is separate from the patient area, it shall be in communication with the critical care unit.

(2) Consultation/demonstration room within, or convenient to, the pediatric critical care unit for private discussions

(3) Storage facilities

\*(a) Provisions for formula storage

(b) Separate storage cabinets or closets for toys and games

\*(c) Equipment storage space. Space for equipment storage shall be provided in accordance with Section 2.1-2.3.9.2.

**\*3.4.5.3 Examination and treatment room(s)**

### 3.4.6 Newborn Intensive Care Units

The following standards apply to the newborn intensive care unit (NICU):

#### 3.4.6.1 Patient care areas

(1) Safety and security

\*(a) All entries to the NICU shall be controlled. The family entrance and reception area shall be clearly identified. The reception area shall permit visual observation and contact with all traffic entering the unit.

(b) The NICU shall be designed as part of an overall safety program to protect the physical security of infants, parents, and staff and to minimize the risk of infant abduction.

(2) Space requirements

- (a) Each patient care space shall contain a minimum of 120 square feet (11.15 square meters) of clear floor area per bassinet excluding sinks and aisles.
- (b) There shall be an aisle adjacent to each infant care space with a minimum width of 4 feet (1.22 meters) in multiple-bed rooms. When single-patient rooms or fixed cubicle partitions are utilized in the design, there shall be an adjacent aisle of not less than 8 feet (2.44 meters) in clear and unobstructed width to permit the passage of equipment and personnel.
- (c) In multiple-bed rooms, there shall be a minimum of 8 feet (2.44 meters) between infant care beds.

(3) Viewing windows. When viewing windows are provided, provision shall be made to control casual viewing of infants.

(4) Privacy. Each patient care space shall be designed to allow privacy for the infant and family.

(5) Control station. A central area shall serve as a control station.

(a) This area shall have space for counters and storage.

(b) This area shall have convenient access to hand-washing stations.

(c) It shall be permitted to be combined with or to include centers for reception and communication and patient monitoring.

(6) Hand-washing stations

(a) In a multiple-bed room, every bed position shall be within 20 feet (6.10 meters) of a hands-free hand-washing station. Where an individual room concept is used, a hands-free hand-washing station shall be provided within each infant care room.

(b) All hand-washing stations shall be large enough to contain splashing.

(7) Construction requirements

(a) Noise control

(i) Infant bed areas and the spaces opening onto them shall be designed to produce minimal background noise and to contain and absorb much of the transient noise that arises within the NICU.

(ii) The combination of continuous background sound and transient sound in any patient care area shall not exceed an hourly Leq of 50 dB and an hourly L10 of 55 dB, both A-weighted slow response. The Lmax (transient sounds) shall not exceed 70 dB, A-weighted slow response.

(b) Doors. At least one door to each patient room in the unit must be large enough in both width and height to accommodate portable x-ray and ultrasound equipment.

(c) Ceilings

(i) Ceilings shall be easily cleanable and nonfriable.

(ii) Ceilings shall have a noise reduction coefficient (NRC) of at least 0.90.

(iii) Ceiling construction shall limit passage of particles from above the ceiling plane into the clinical environment.

(8) Lighting

(a) Provisions shall be made for indirect lighting and high-intensity lighting in the NICU.

(b) Controls shall be provided to enable lighting to be adjusted over individual patient care spaces.

(c) Darkening sufficient for transillumination shall be available when necessary.

## 2.1 GENERAL HOSPITALS

- (d) No direct ambient lighting shall be permitted in the infant care space, and any direct ambient lighting used outside the infant care area shall be located or framed to avoid a direct line of sight from any infant to the fixture. This does not exclude the use of direct procedure lighting.
- (e) Lighting fixtures shall be easy to clean.
- (f) At least one source of daylight shall be visible from newborn care areas.
  - (i) External windows in infant care rooms shall be glazed with insulating glass to minimize heat gain or loss.
  - (ii) External windows in infant care rooms shall be situated at least 2 feet (60.96 centimeters) away from any part of a baby's bed to minimize radiant heat loss from the baby.
  - (iii) All external windows shall be equipped with easily cleaned shading devices that are neutral color or opaque to minimize color distortion from transmitted light.

**3.4.6.2 Airborne infection isolation room.** An airborne infection isolation room shall be required in at least one level of nursery care.

- (1) The room shall be enclosed and separated from the nursery unit with provisions for observation of the infant from adjacent nurseries or control area(s).
- (2) All airborne infection isolation rooms shall comply with the requirements of Section 2.1-3.2.2, except the requirements for separate toilet, bathtub, or shower.

### APPENDIX

**A3.4.6.4 (6)** Whenever possible, supplies should flow through special supply entrances from external corridors so that penetration of the semi-sterile zone by non-nursery personnel is unnecessary.

**A3.4.6.4 (7)** Soiled materials should be sealed and stored in a soiled holding area until removed. This holding area should be located where there will be no need to pass back through the semi-sterile zone to remove the soiled materials.

**3.4.6.3 Diagnostic, treatment, and service areas.** Support space shall be accessible for respiratory therapy, blood gas lab, developmental therapy, social work, laboratory, pharmacy, radiology, and other ancillary services when these activities are routinely performed on the unit.

**3.4.6.4 Support areas for newborn intensive care units**

- (1) Documentation area. Charting facilities shall have adequate linear surface space to ensure that staff and physicians may chart and have simultaneous access to information and communication systems.
- (2) Nurse/supervisor office or station. This shall be provided in accordance with Section 2.1-3.4.2.4 (3).
- (3) Multipurpose room(s) for staff, patients, and patients' families for patient conferences, reports, education, training sessions, and consultation.
  - (a) These rooms must be accessible to each nursing unit. They may be on other floors if convenient for regular use.
  - (b) One such room may serve several nursing units and/or departments.
- (4) Medication station. A medication station shall be provided in accordance with Section 2.1-2.3.4.
- (5) Lactation support space. Space shall be provided for lactation support and consultation in or immediately adjacent to the NICU. Provision shall be made, either within the room or conveniently located nearby, for hand-washing station, counter, refrigeration and freezing, storage for pump and attachments, and educational materials.
- \* (6) Clean workroom or clean supply room. This room shall be provided in accordance with Section 2.1-3.4.2.4 (10).
- \* (7) Soiled workroom or soiled holding room. This room shall be provided in accordance with Section 2.1-3.4.2.4 (11).
- (8) Emergency equipment storage. Space for storage of emergency equipment shall be provided in accordance with Section 2.1-2.3.9.4.

(9) Housekeeping room. A housekeeping room shall be provided for the unit.

- (a) This room shall be directly accessible from the unit and dedicated for the exclusive use of the NICU.
- (b) This room shall contain a service sink or floor receptor and provisions for storage of supplies and housekeeping equipment.

**3.4.6.5 Support areas for staff**

- (1) Staff lounge, storage facilities, and toilet. A lounge, locker room, and staff toilet shall be provided within or adjacent to the unit for staff use.
- (2) Staff accommodations. Physician sleeping facilities with access to a toilet and shower. If not contained within the unit itself, the area shall have a telephone or intercom connection to the patient care area.

**3.4.6.6 Support areas for patients and visitors**

- (1) Visitor waiting room. See Section 2.1-3.4.2.6.
- (2) Parent/infant room(s). A room(s) shall be provided within the NICU that allow(s) parents and infants extended private time together.
  - (a) The room(s) shall have direct, private access to sink and toilet facilities, communication linkage with the NICU staff, electrical and medical gas outlets as specified for other NICU beds, sleeping facilities for at least one parent, and sufficient space for the infant's bed and equipment.
  - (b) The room(s) may be used for other purposes when they are not required for family use.

**3.5 Postpartum Units**

See Section 2.1-4.2.

**3.6 Nurseries**

**3.6.1 General**

Infants shall be housed in nurseries that comply with the standards in this section.

**3.6.1.1 Location.** All nurseries other than pediatric nurseries shall be convenient to the postpartum nursing unit and obstetrical facilities.

**3.6.1.2 Layout**

- (1) The nurseries shall be located and arranged to preclude the need for unrelated pedestrian traffic.
- (2) No nursery shall open directly onto another nursery.

**3.6.2 Patient Care Areas (General)**

The following standards shall apply to nurseries:

**3.6.2.1 Space requirements.** Enough space shall be provided for parents to stay 24 hours.

**3.6.2.2 Viewing windows.** Glazed observation windows to permit the viewing of infants from public areas, workrooms, and adjacent nurseries shall be provided.

**3.6.2.3 Hand-washing station(s).** At least one lavatory, equipped with a hands-free hand-washing facility, shall be provided for each eight or fewer infant stations.

**3.6.2.4 Storage for infant supplies.** Convenient, accessible storage for linens and infant supplies shall be provided at each nursery room.

**3.6.3 Airborne Infection Isolation Room**

An airborne infection isolation room shall be provided in or near at least one level of nursery care.

**3.6.3.1** The room shall be enclosed and separated from the nursery unit with provisions for observation of the infant from adjacent nurseries or control area(s).

**3.6.3.2** All airborne infection isolation rooms shall comply with the requirements of Section 2.1-3.2.2, except for separate toilet, bathtub, or shower.

**3.6.4 Neonate Examination and Treatment Areas**

Such areas, when required by the functional program, shall contain a work counter, storage facilities, and a hands-free hand-washing station.

## 2.1 GENERAL HOSPITALS

### 3.6.5 Support Areas for Nurseries

The following standards shall apply to nurseries:

**3.6.5.1 Documentation area.** Charting facilities shall have linear surface space to ensure that staff and physicians may chart and have simultaneous access to information and communication systems.

**\*3.6.5.2 Workroom(s).** Each nursery room shall be served by a connecting workroom.

- (1) The workroom shall contain scrubbing and gowning facilities at the entrance for staff and housekeeping personnel, work counter, refrigerator, storage for supplies, and a hands-free hand-washing station.
- (2) One workroom may serve more than one nursery room provided that required services are convenient to each.
- (3) The workroom serving the full-term and continuing care nurseries may be omitted if equivalent work and storage areas and facilities, including those for scrubbing and gowning, are provided within that nursery. Space required for work areas located within the nursery is in addition to the area required for infant care.
- (4) Provision shall be made for storage of emergency cart(s) and equipment out of traffic.
- (5) Provision shall be made for the sanitary storage and disposal of soiled waste.
- (6) Visual control shall be provided via borrowed lights and/or view panels between the staff work area and each nursery.

**3.6.5.3 Lactation support room.** A consultation/demonstration/breastfeeding or pump room shall be provided convenient to the nursery.

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**A3.6.5.2** When the functional program includes a mother-baby couplet approach to nursing care, the workroom functions described above may be incorporated into the nurse station that serves the postpartum patient rooms.

- (1) Provision shall be made, either within the room or conveniently located nearby, for hand-washing station, counter, refrigeration and freezing, storage for pump and attachments, and educational materials.
- (2) If conveniently located, this ancillary area shall be permitted to be shared for other purposes.

### 3.6.5.4 Neonate formula facilities

- (1) Location. Where infant formula is prepared on-site, direct access from the formula preparation room to any nursery room is prohibited. The room may be located near the nursery or at other appropriate locations in the hospital.
- (2) The formula preparation room shall include the following:
  - (a) Cleanup area for washing and sterilizing supplies. This area shall include a hand-washing station, facilities for bottle washing, a work counter, and sterilization equipment.
  - (b) Separate room for preparing infant formula. This room shall contain warming facilities, refrigerator, work counter, formula sterilizer, storage facilities, and a hand-washing station.
  - (c) Refrigerated storage and warming facilities for infant formula accessible for use by nursery personnel at all times.
- (3) If a commercial infant formula is used, the separate cleanup and preparation rooms may be omitted. The storage and handling may be done in the nursery workroom or in another appropriate room that is conveniently accessible at all hours. The preparation area shall have a work counter, a hand-washing station, and storage facilities.

**3.6.5.5 Soiled workroom or soiled holding room** shall be provided in accordance with Section 2.1-2.3.8.

### 3.6.5.6 Housekeeping room

- (1) A housekeeping/environmental services room shall be provided for the exclusive use of the

nursery unit. It shall be directly accessible from the unit.

- (2) This room shall contain a service sink or floor receptor and provide for storage of supplies and housekeeping equipment.

### 3.6.6 Newborn Nursery

**\*3.6.6.1 Capacity.** Each newborn nursery room shall contain no more than 16 infant stations. When a rooming-in program is used, the total number of bassinets in these units shall be permitted to be reduced, but the newborn nursery shall not be omitted in its entirety from any facility that includes delivery services.

**3.6.6.2 Area.** The minimum floor space shall be 24 square feet (2.23 square meters) per bassinet, exclusive of auxiliary work areas.

**3.6.6.3 Baby-holding nursery.** In postpartum and labor-delivery-recovery-postpartum (LDRP) units, a baby-holding nursery shall be permitted instead of a traditional nursery.

- (1) The minimum floor area per bassinet, ventilation, electrical, and medical vacuum and gases shall be the same as that required for a full-term nursery.
- (2) These holding nurseries shall be next to the nurse station on these units.
- (3) The holding nursery shall be sized to accommodate the percentage of newborns who do not remain with their mothers during the postpartum stay.

### 3.6.7 Continuing Care Nursery

**3.6.7.1** For hospitals that provide continuing care for infants requiring close observation (for example, low birth-weight babies who are not ill but require more hours of nursing than normal neonates), the minimum floor space shall be 50 square feet (4.65 square meters) per bassinet, exclusive of auxiliary work areas, with provisions for at least 4 feet (1.22 meters) between and at all sides of each bassinet.

**3.6.7.2** The continuing care bassinets are permitted to be within the hospital's NICU in a defined location for these infants.

### 3.6.8 Pediatric Nursery

**3.6.8.1 Capacity.** To minimize the possibility of cross-infection, each nursery room serving pediatric patients shall contain no more than eight bassinets.

**Note:** Limitation on number of patients in a nursery room does not apply to the pediatric critical care unit.

**3.6.8.2 Space requirements.** Each bassinet shall have a minimum clear floor area of 40 square feet (3.72 square meters).

**3.6.8.3 Facility requirements.** Each room shall contain a hands-free hand-washing station, a nurse emergency call system, and a glazed viewing window for observing infants from public areas and workrooms.

### \*3.7 Pediatric and Adolescent Unit

The unit shall meet the following standards:

#### 3.7.1 Patient Rooms

**3.7.1.1 Capacity.** Maximum room capacity shall be four patients.

**3.7.1.2 Space requirements.** The space requirements for pediatric patient beds shall be the same as for adult beds due to the size variation and the need to change from cribs to beds and vice-versa. See Section 2.1-3.1.1.2 for requirements.

**\*3.7.1.3 Family support requirements.** Additional provisions for hygiene, toilets, sleeping, and personal belongings shall be made where the program indicates that parents will be allowed to remain with young children. (See Section 2.1-3.4.5 for pediatric critical care units and Section 2.1-3.6.6 for newborn nurseries.)

## APPENDIX

**A3.6.6.1** For facilities that use a rooming-in program in which all infants are returned to the nursery at night, a reduction in nursery size may not be practical.

**A3.7** In view of their unique physical and developmental needs, pediatric and adolescent patients, to the extent their condition permits, should be grouped together in distinct units or distinct areas of general units separate from adults.

**A3.7.1.3** Family support spaces, including family sleep rooms, pantry, toilets, showers, washers and dryers, and access to computers, phones, and copy machines, should be provided.

**3.9.6 Construction Requirements****3.9.6.1 Handrails**

- (1) Handrails located in accordance with ADA and all local, state, and federal requirements shall be installed on both sides of the patient use corridor. Where corridors are defined by walls, handrails shall be provided on both sides of all corridors normally used by patients.
- (2) A minimum clearance of 1-1/2 inches (3.81 centimeters) shall be provided between the handrail and the wall.
- (3) Rail ends shall be returned to the wall or floor.

**4 Obstetrical Facilities****\*4.1 General****4.1.1 Location and Layout**

The obstetrical unit shall be located and designed to prohibit nonrelated traffic through the unit. When delivery and operating rooms are in the same suite, access and service arrangements shall be such that neither staff nor patients need to travel through one area to reach the other.

**APPENDIX**

**A4.1** Obstetrical program models vary widely in their delivery methodologies. The models are essentially of three types. The following narrative describes the organizational framework of each model.

**a. Traditional Model**

Under the traditional model, labor, delivery, recovery, and postpartum occur in separate areas. The birthing woman is treated as the moving part. She is moved through these functional areas depending on the status of the birth process.

The functional areas are separate rooms consisting of the labor room, delivery room, recovery room, postpartum bedroom, and infant nurseries (levels determined by acuity).

**b. Labor-Delivery-Recovery Model**

All labor-delivery-recovery rooms (LDRs) are designed to accommodate the birthing process from labor through delivery and recovery of mother and baby. They are equipped to handle most complications, with the exception of cesarean sections.

**4.1.2 Newborn Nursery**

A newborn nursery shall be provided. See Section 2.1-3.6.6.

**4.1.3 Renovation**

Except as permitted otherwise herein, existing facilities being renovated shall, as far as practicable, provide all the required support services.

**4.2 Postpartum Unit****4.2.1 Postpartum Bedrooms**

See Section 2.1-3.1.1.

**4.2.2 Airborne Infection Isolation Room(s)**

An airborne infection isolation room is not required for the obstetrical unit. Provisions for the care of the perinatal patient with an airborne infection shall be determined by an ICRA.

**4.2.3 Examination/Treatment Room and/or Multipurpose Diagnostic Testing Room**

**4.2.3.1** Space requirements. This room shall have a minimum clear floor area of 120 square feet (11.15 square meters). When used as a multi-patient diagnostic testing room, a minimum clear floor area of 80 square feet (7.43 square meters) per patient shall be provided.

The birthing woman moves only as a postpartum patient to her bedroom or to a cesarean section delivery room (surgical operative room) if delivery complications occur.

After the mother and baby are recovered in the LDR, they are transferred to a mother-baby care unit for postpartum stay.

**c. Labor-Delivery-Recovery-Postpartum Model**

Single-room maternity care in labor-delivery-recovery-postpartum rooms (LDRPs) adds a "P" to the LDR model. Room design and capability to handle most emergencies remain the same as the LDRs. However, the LDRP model eliminates a move to postpartum after delivery. LDRP uses one private room for labor, delivery, recovery, and postpartum stay.

Equipment is moved into the room as needed, rather than moving the patient to the equipped room. Certain deliveries are handled in a cesarean section delivery room (surgical operative room) should delivery complications occur.

## 2.1 GENERAL HOSPITALS

4.2.3.2 Toilet room. An adjoining toilet room shall be provided for patient use.

4.2.4 Support Areas for the Postpartum Unit  
The following support areas shall be provided for this unit.

4.2.4.1 A nurse station

4.2.4.2 Documentation area

4.2.4.3 A nurse office

4.2.4.4 Consultation/conference room(s)

4.2.4.5 Medication station. Provision shall be made for storage and distribution of drugs and routine medications. This may be done from a medicine preparation room or unit, from a self-contained medicine-dispensing unit, or by another system.

(1) Medicine preparation room or unit

(a) If used, a medicine preparation room or unit shall be under visual control of nursing staff.

(b) This room or unit shall contain a work counter, sink, refrigerator, and double-locked storage for controlled substances.

(c) Convenient access to hand-washing stations shall be provided. (Standard cup-sinks provided in many self-contained units are not adequate for hand-washing.)

4.2.4.6 Nourishment area. A nourishment station shall be provided in accordance with Section 2.1-2.3.5.

4.2.4.7 Clean workroom or clean supply room. A clean workroom or clean supply room shall be provided in accordance with Section 2.1-2.3.7. A clean workroom is required if clean materials are assembled within the obstetrical suite prior to use.

4.2.4.8 Soiled workroom or soiled holding room. A soiled workroom or soiled holding room shall be provided for the exclusive use of the obstetrical suite in accordance with Section 2.1-2.3.8.

4.2.4.9 Equipment and supply storage

(1) Clean linen storage. This shall be provided in accordance with Section 2.1-2.3.9.1.

(2) Equipment storage room. Each unit shall provide sufficient storage area(s) on the patient floor to keep its required corridor width free of equipment and supplies.

(a) This storage area shall be not less than 10 square feet (0.93 square meter) per postpartum room and 20 square feet (1.86 square meters) per each labor-delivery-recovery (LDR) or LDRP room.

(b) This storage area shall be in addition to any storage in patient rooms.

(3) Storage space for stretchers and wheelchairs. Storage space shall be provided in accordance with Section 2.1-2.3.9.3.

(4) Emergency equipment storage. Storage shall be close to the nurse station.

4.2.4.10 Housekeeping room. A housekeeping room shall be provided for the exclusive use of the obstetrical suite in accordance with Section 2.1-2.3.10.

4.2.5 Support Areas for Staff

The following support areas shall be provided for this unit.

4.2.5.1 Staff lounge

4.2.5.2 Staff storage facilities. Lockable closets or cabinets for personal articles of staff shall be provided.

4.2.5.3 Staff toilet room

4.2.6 Support Areas for Patients and Visitors

The following support areas shall be provided for this unit.

4.2.6.1 Patient lounge. The patient lounge may be omitted if all rooms are single-bed rooms.

4.2.6.2 Patient bathing facilities

(1) Where bathing facilities are not provided in

patient rooms, there shall be at least one shower and/or bathtub for each six beds or fraction thereof.

- (2) A toilet and hand-washing station shall be provided within or directly accessible to each bathing facility.

**4.3 Cesarean/Delivery Suite**

**4.3.1 Labor Rooms**

**4.3.1.1 General**

- (1) Number. In facilities that have only one cesarean/delivery room, two labor rooms shall be provided.
- (2) Access. Labor rooms shall have controlled access with doors that are arranged for observation from a nursing station.

**4.3.1.2 Capacity.** Where LDRs or LDRPs are not provided, a minimum of two labor beds shall be provided for each cesarean/delivery room.

**4.3.1.3 Space requirements**

- (1) Each room shall be designed for either one or two beds, with a minimum clear area of 120 square feet (11.15 square meters) per bed.
- (2) In renovation projects, labor room(s) (LDR or LDRP rooms may be substituted) shall have a minimum clear area of 100 square feet (9.29 square meters) per bed.

**4.3.1.4 Windows.** Windows in labor rooms, if provided, shall be located, draped, or otherwise arranged to preserve patient privacy from casual observation from outside the labor room.

**4.3.1.5 Hand-washing station.** Each labor room shall contain a hand-washing station.

**4.3.1.6 Toilet room**

- (1) Each labor room shall have access to a toilet room.
- (2) One toilet room may serve two labor rooms.

**4.3.1.7 Bathing facilities.** At least one shower (which

may be separate from the labor room if under staff control) for use of patients in labor shall be provided.

**4.3.2 Delivery Room(s)**

**4.3.2.1 Space requirements.** These shall have a minimum clear area of 300 square feet (27.87 square meters) exclusive of fixed cabinets and built-in shelves.

**4.3.2.2 Emergency communication system.** An emergency communication system shall be connected with the obstetrical suite control station.

**4.3.3 Cesarean/Delivery Room(s)**

**4.3.3.1 Number.** There shall be a minimum of one such room in every obstetrical unit.

**4.3.3.2 Space requirements.** These shall have a minimum clear floor area of 360 square feet (33.45 square meters) with a minimum dimension of 16 feet (4.88 meters) exclusive of built-in shelves or cabinets.

**4.3.4 Infant Resuscitation Space**

**4.3.4.1 Location.** Infant resuscitation shall be provided within cesarean/delivery room(s) and delivery rooms or in a separate but immediately accessible room.

**4.3.4.2 Space requirements**

- (1) Space in delivery rooms. A minimum clear floor area of 40 square feet (3.72 square meters) shall be provided for the infant resuscitation space in addition to the required area of each delivery or cesarean/delivery room.
- (2) Space in a separate room. Infant resuscitation space provided in a separate but immediately accessible room shall have a minimum clear floor area of 150 square feet (13.94 square meters).

**4.3.4.3 Electrical outlets.** Six single or three duplex electrical outlets shall be provided for the infant in addition to the facilities required for the mother.

**4.3.5 Recovery Room(s)**

LDR or LDRP rooms, when located within or adjacent to the cesarean/delivery suite, may be substituted.

**4.3.5.1 Capacity.** Recovery rooms shall contain at least two beds.

## 2.1 GENERAL HOSPITALS

### 4.3.5.2 Support areas for recovery rooms

- (1) Nurse station and documentation area. Recovery room shall have a nurse station with charting facilities located to permit visual control of all beds.
- (2) Hand-washing station. Each room shall include a hand-washing station.
- (3) Medication dispensing facilities. Each room shall include facilities for dispensing medicine.
- (4) Clinical sink. A clinical sink with bedpan flushing device shall be available.
- (5) Equipment and supply storage. Storage for supplies and equipment shall be available.

### 4.3.5.3 Support areas for families

- (1) When required by the functional program, there shall be enough space for baby and crib and a chair for the support person. There shall be the ability to maintain visual privacy for the new family.

### 4.3.6 Support Areas for the Cesarean/Delivery Suite

4.3.6.1 General. Individual rooms shall be provided as indicated in the following standards; otherwise, alcoves or other open spaces that do not interfere with traffic may be used.

4.3.6.2 Areas solely for the cesarean/delivery suite. The following support areas shall be provided:

- (1) A control/nurse station. This shall be located to restrict unauthorized traffic into the suite.
- (2) Soiled workroom or soiled holding room. This room shall be provided in accordance with Section 2.1-2.3.8.
- (3) Fluid waste disposal

## APPENDIX

**A4.3.6.3 (5)** High-speed autoclaves should only be used in an emergency situation (e.g., a dropped instrument and no sterile replacement readily available).

4.3.6.3 Areas permitted to be shared. The following support areas shall be permitted to be shared with the surgical facilities in accordance with the functional program. Where shared, areas shall be arranged to avoid direct traffic between the delivery and operating rooms.

- (1) A supervisor's office or station
- (2) Medication station. A drug distribution station with hand-washing stations and provisions for controlled storage, preparation, and distribution of medication shall be provided. A self-contained medication dispensing unit in accordance with Section 2.1-2.3.4 may be utilized instead.
- (3) Scrub facilities for cesarean/delivery rooms
  - (a) Two scrub positions shall be provided adjacent to the entrance to each cesarean/delivery room.
  - (b) Scrub facilities shall be arranged to minimize any splatter on nearby personnel or supply carts.
  - (c) In new construction, view windows shall be provided at scrub stations to permit the observation of room interiors.
- (4) Anesthesia workroom. An anesthesia workroom for cleaning, testing, and storing anesthesia equipment shall be provided. It shall contain a work counter, sink, and provisions for separation of clean and soiled items.
- \* (5) Sterilization facilities. Sterilization facilities with high-speed sterilizers shall be located convenient to all cesarean/delivery rooms. Sterilization facilities shall be separate from the delivery area and adjacent to clean assembly.
- (6) Clean workroom or clean supply room
  - (a) Clean workroom. A clean workroom shall be provided if clean materials are assembled within the obstetrical suite prior to use. It shall contain a work counter, hand-washing station, and space for storage of supplies.

- (b) Clean supply room. Provision of a clean supply room shall be permitted when the functional program defines a system for the storage and distribution of clean and sterile supplies. See (7)(a) just below for sterile storage.
- (7) Equipment and supply storage. Storage room(s) shall be provided for equipment and supplies used in the obstetrical suite. These shall include the following:
- (a) A clean sterile storage area readily available to the delivery room. The size shall be based on level of usage, functions provided, and supplies from the hospital central distribution area.
- (b) Medical gas storage facilities. See Section 2.1-5.3.5.14 (3).
- (c) An area for storing stretchers out of the path of normal traffic
- (8) Housekeeping room. Housekeeping room with a floor receptacle or service sink and storage space for housekeeping supplies and equipment.

#### 4.3.7 Support Areas for Staff

The following support areas shall be permitted to be shared with the surgical facilities in accordance with the functional program. Where shared, areas shall be arranged to avoid direct traffic between the delivery and operating rooms.

**4.3.7.1 Lounge and toilet facilities.** Lounge and toilet facilities for obstetrical staff convenient to delivery, labor, and recovery areas. The toilet room shall contain hand-washing stations.

#### 4.3.7.2 Staff change areas

- (1) The clothing change area(s) shall be laid out to encourage one-way traffic and eliminate cross-traffic between clean and contaminated personnel.
- (2) The area(s) shall contain lockers, showers, toilets, hand-washing stations, and space for donning and disposing scrub suits and booties.

**4.3.7.3 Support person change areas.** Change areas, designed as described above, shall be provided for male and female support persons.

**4.3.7.4 Staff accommodations.** An on-call room(s) shall be provided for physician and/or staff. It may be located elsewhere in the facility.

#### 4.3.8 Support Areas for Visitors

The following support areas shall be permitted to be shared with the surgical facilities in accordance with the functional program.

**4.3.8.1 Waiting room.** A waiting room, with toilets, telephones, and provisions for drinking water shall be conveniently located. The toilet room shall contain hand-washing stations.

#### 4.4 LDR and LDRP Rooms

When required by the functional program, delivery procedures in accordance with birthing concepts may be performed in the LDR or LDRP rooms.

##### 4.4.1 Location

LDR room(s) may be located in a separate LDR suite or as part of the cesarean/delivery suite. The postpartum unit may contain LDRP rooms.

##### 4.4.2 Capacity

Each LDR or LDRP room shall be for single occupancy.

##### 4.4.3 Space Requirements

**\*4.4.3.1 New construction.** These rooms shall have a minimum clear floor area of 300 square feet (27.87 square meters) with a minimum dimension of 13 feet (3.96 meters), exclusive of toilet room, closet, alcove, or vestibules.

(1) Where required by the functional program, there shall be enough space for a crib and reclining chair for a support person.

(2) An area within the room but distinct from the

#### APPENDIX

**A4.4.3.1** A minimum dimension of 15 feet (4.57 meters) is preferable to accommodate the equipment and staff needed for complex deliveries.

## 2.1 GENERAL HOSPITALS

mother's area shall be provided for infant stabilization and resuscitation.

4.4.3.2 Renovation. When renovation work is undertaken, every effort shall be made to meet the above minimum standards. If it is not possible to meet the above square-foot standards, existing LDR or LDRP rooms shall be permitted to have a minimum clear area of 200 square feet (18.58 square meters).

### 4.4.4 Patient Privacy

Windows or doors within a normal sightline that would permit observation into the room shall be arranged or draped as necessary for patient privacy.

### 4.4.5 Hand-Washing Stations

Each room shall be equipped with hand-washing stations. (Hand-washing stations with hands-free operation are acceptable for scrubbing.)

### 4.4.6 Patient Bathroom

Each LDR or LDRP room shall have direct access to a private toilet with shower or tub.

### 4.4.7 Medical Gas Outlets

4.4.7.1 See Table 2.1-5 for medical gas outlet requirements.

4.4.7.2 These outlets shall be located in the room so they are accessible to the mother's delivery area and infant resuscitation area.

### 4.4.8 Finishes

Finishes shall be selected to facilitate cleaning and to resist strong detergents.

### 4.4.9 Lighting

Portable examination lights shall be permitted, but must be immediately accessible.

## 5 Diagnostic and Treatment Locations

### \*5.1 Emergency Service

#### 5.1.1 General

##### \*5.1.1.1 Definition

Levels of emergency care range from initial emergency management to definitive emergency care.

## APPENDIX

### A5.1 Surge Capacity

In preparation for the emergence of highly infectious patients, hospitals should have the capacity to handle a surge of up to ten or a fourfold increase above the current emergency department capacity for such patients.

a. This preparation should include the provision of adjacent space for triage and management of infectious patients.

b. Utility upgrades for these areas (oxygen, water, electrical) should be considered.

c. The area should provide for depressurization to help control aerosolized infectious particles with 100 percent exhaust capability. If 100 percent exhaust cannot be achieved, appropriate proven technology should be utilized to reduce airborne particles by > 95 percent. If patient care areas are to be utilized in the hospital to house these patients, the route to the patient care unit should minimize the potential for cross-contamination. Existing smoke control areas could be utilized to meet the ventilation requirements. Air-handling systems should be designed to provide required pressure differentials. Written protocols must be developed to ensure

proper performance of the means to accomplish the intended goals. DHHS, the Office of Emergency Preparedness, will have more up-to-date information.

#### A5.1.1.1 Classification of emergency departments/ services/trauma centers

Basic aspects of previous Level I-IV emergency department/ services classifications are still recognizable in current criteria statements but have evolved substantially to address changes in practice, needs, and technologies. The following publications are especially useful references for understanding and listing current refined and expanded requirements:

American College of Surgeons. "Trauma Center Descriptions and Their Roles in a Trauma System," chapter 2 in *Resources for Optimal Care of the Injured Patient* (ACS, 1999). This reference provides detailed descriptions of Level I-Level IV trauma centers. ([www.facs.org](http://www.facs.org))

Riggs, Leonard M., Jr., ed. *Emergency Department Design* (American College of Emergency Physicians, 1993). The author discusses planning for various levels of treatment acuity. ([www.acep.org](http://www.acep.org))

- (1) Initial emergency management is care provided to stabilize a victim's condition and to minimize potential for further injury during transport to an appropriate service. Patients may be brought to the "nearest hospital," which may or may not have all required services for definitive emergency management. In those cases, it is important that the hospital be able to assess and stabilize emergent illnesses and injuries and arrange for appropriate transfer.
- (2) Emergency care may range from the suturing of lacerations to full-scale emergency medical procedures. Facilities that include personnel and equipment for definitive emergency care provide for 24-hour service and complete emergency care leading to discharge to the patient's home or direct admission to the appropriate hospital.

5.1.1.2 Applicability. The extent and type of emergency service to be provided depends on community needs and the availability of other services in the area.

- (1) While initial emergency management shall be available at every hospital, full-scale definitive emergency services may be impractical and/or an unnecessary duplication.
- (2) All services need adequate equipment and 24-hour staffing to ensure no delay in essential treatment.

5.1.1.3 Requirements

- (1) The following standards are intended only as minimums. Additional facilities, as needed, shall be as required to satisfy the functional program.
- (2) Provisions for facilities to provide non-emergency treatment of outpatients are covered in Chapter 3.2.

5.1.2 Initial Emergency Management

5.1.2.1 General

- (1) At a minimum, each hospital shall have provisions for emergency treatment for staff, employees, and visitors, as well as for persons who may be unaware of or unable to immediately reach services in other facilities. This is not only for patients with minor illnesses or injuries that may

require minimal care but also for persons with severe illness and injuries who must receive immediate emergency care and assistance prior to transport to other facilities.

- (2) Provisions for initial emergency management shall include the following:

5.1.2.2 Entrance. A well-marked, illuminated, and covered entrance shall be provided at grade level. The emergency vehicle entry cover shall provide shelter for both the patient and the emergency medical crew during transfer from an emergency vehicle into the building.

5.1.2.3 Reception, triage, and control station. This shall be located to permit staff observation and control of access to treatment area, pedestrian and ambulance entrances, and public waiting area.

5.1.2.4 Communication system. Communication hookups to the Poison Control Center and regional emergency medical service (EMS) system.

5.1.2.5 A treatment room

- (1) Space requirements

- (a) This shall have not less than 120 square feet (11.15 square meters) of clear area, exclusive of toilets, waiting area, and storage.

- (b) The treatment room may have additional space and provisions for several patients with cubicle curtains for privacy. Multiple-bed treatment rooms shall provide a minimum of 80 square feet (7.43 square meters) per patient cubicle.

- (2) Facility requirements. Each treatment room shall contain an examination light, work counter, hand-washing stations, medical equipment, cabinets, medication storage, adequate electrical outlets above floor level, and counter space for writing.

5.1.2.6 Airborne infection control. At least one airborne infection isolation room shall be provided as described in Table 2.1-2 and Sections 2.1-3.2.2.2, 2.1-3.2.2.4 (2)(a) and (b), and 3.2.2.4 (4). The need for additional airborne infection isolation rooms or

## 2.1 GENERAL HOSPITALS

for protective environment rooms as described in Section 2.1-3.2.3 shall be determined by an ICRA.

**5.1.2.7 Equipment and supply storage.** Storage for general medical/surgical emergency supplies, medications, and equipment such as ventilator, defibrillator, splints, etc. This shall be located out of traffic and under staff control.

**5.1.2.8 Waiting room.** Provisions for reception, control, and public waiting. These shall include a public toilet with hand-washing station(s) and a telephone.

**5.1.2.9 Patient toilet.** A patient toilet room with hand-washing station(s). This shall be convenient to the treatment room(s).

### \*5.1.3 Definitive Emergency Care

**5.1.3.1 General.** Where 24-hour emergency service is to be provided, the type, size, and number of the services shall be as defined in the functional program. As a minimum, the following shall be provided:

**5.1.3.2 Emergency access.** Paved emergency access to permit discharge of patients from automobiles and ambulances and temporary parking convenient to the entrance shall be provided.

**5.1.3.3 Entrance.** A well-marked, illuminated, and covered entrance shall be provided at grade level.

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### A5.1.3 Fast-Track Area

A separate fast-track area when annual emergency department visits exceed 20,000–30,000 visits should be considered. This area should include space for registration, discharge, triage, and waiting, as well as a physician/nurse work station. Storage areas for supplies and medication should be included. A separate treatment/procedure room of 120 square feet (11.15 square meters) of clear floor space should be provided. Examination/treatment areas should be 100 square feet (9.29 square meters) of clear floor space, with hand-washing stations, vacuum, oxygen, and air outlets, and examination lights. At least one treatment/examination room should be designated for pelvic examinations.

**A5.1.3.4** The design of the emergency department is critical, particularly at the main public access point, to ensure that emergency medical staff and hospital security personnel maintain control of

(1) This shall provide direct access from public roads for ambulance and vehicle traffic.

(2) Entrance and driveway shall be clearly marked.

(3) If a raised platform is used for ambulance discharge, a ramp shall be provided for pedestrian and wheelchair access.

### \*5.1.3.4 Reception, triage, and control station

(1) Reception, triage, and control station shall be located to permit staff observation and control of access to treatment area, pedestrian and ambulance entrances, and public waiting area. (See Table 2.1-5.)

(2) The triage area requires special consideration. As the point of entry and assessment for patients with undiagnosed and untreated airborne infections, the triage area shall be designed and ventilated to reduce exposure of staff, patients, and families to airborne infectious diseases. (See Table 2.1-2.)

**5.1.3.5 Communications center.** The communications center shall be convenient to the nursing station and have radio, telephone, and intercommunication systems. (See Section 2.1-8.1.3.)

### 5.1.3.6 Public waiting area

access at all times. In the event of a disaster, terrorist event, or infectious disease outbreak, the emergency service must remain under the control of the hospital and limit contamination to ensure its continued availability as a resource.

a. Efforts will be made to separate patients waiting for triage in a secure area with appropriate ventilation that is clearly visible from the triage station. This area will be separate from the post-triage waiting area to limit the spread of contamination and/or contagion.

b. Although the triage station must have unobstructed visibility of the waiting area to permit observation of patients waiting for treatment, a reception and control or security function must be provided to monitor the main entrance to the department and all public areas. Public access points to the treatment area shall be minimal in number, and under direct observation by the reception and control or security function.

- (1) This shall have toilet facilities, drinking fountains, and telephones.
- (2) If so determined by the hospital ICRA, the emergency department waiting area shall require special measures to reduce the risk of airborne infection transmission. These measures may include enhanced general ventilation and air disinfection similar to inpatient requirements for airborne infection isolation rooms. See the CDC "Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Health Care Facilities."

## 5.1.3.7 Diagnostic, treatment, and service areas

- (1) Examination and treatment room(s)
    - (a) Space requirements. Each examination room shall have a minimum clear floor area of 120 square feet (11.15 square meters), exclusive of fixed casework.
    - (b) Facility requirements. Each examination room shall contain work counter(s); cabinets; hand-washing stations; supply storage facilities; examination lights; a desk, counter, or shelf space for writing; and a vision panel adjacent to and/or in the door.
    - (c) Renovation. Where renovation work is undertaken, every effort shall be made to meet these minimum standards. In such cases, each room shall have a minimum clear area of 100 square feet (9.29 square meters), exclusive of fixed or wall-mounted cabinets and built-in shelves.
    - (d) Treatment cubicles
      - (i) Where treatment cubicles are in open multiple-bed areas, each cubicle shall have a minimum of 80 square feet (7.43 square meters) of clear floor space and shall be separated from adjoining cubicles by curtains.
      - (ii) Hand-washing stations shall be provided for each four treatment cubicles or major fraction thereof in multiple-bed areas.
  - (e) For oxygen and vacuum, see Table 2.1-5.
  - (f) Treatment/examination rooms used for pelvic exams shall allow for the foot of the examination table to face away from the door.
- \* (2) Trauma/cardiac rooms for emergency procedures, including emergency surgery
- (a) Space requirements
    - (i) Each room shall have at least 250 square feet (23.23 square meters) of clear floor space.
    - (ii) Additional space with cubicle curtains for privacy may be provided to accommodate more than one patient at a time in the trauma room.
  - (b) Facility requirements. The room shall contain cabinets and emergency supply shelves, x-ray film illuminators, examination lights, and counter space for writing.
  - (c) Patient monitoring. Provisions shall be made for monitoring the patients.
  - (d) Supply storage. Storage shall be provided for immediate access to attire used for universal precautions.
  - (e) Door width. Doorways leading from the ambulance entrance to the cardiac trauma room shall be a minimum of 5 feet (1.52 meters) wide to simultaneously accommodate stretchers, equipment, and personnel.
  - (f) Renovation. In renovation projects, every effort shall be made to have existing cardiac/trauma rooms meet the above minimum standards. If it is not possible to meet the above square-foot standards, the authorities having jurisdiction may grant approval to deviate from this requirement. In such cases, these rooms shall

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A5.1.3.7 (2) Access should be convenient to the ambulance entrance.

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be no less than a clear area of 240 square feet (22.30 square meters), and doorways leading from the ambulance entrance to the room may be 4 feet (1.22 meters) wide.

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**A5.1.3.7 (4)** When advanced imaging technologies such as CT are available, the emergency department should have convenient access.

**A5.1.3.7 (5) Decontamination area on the exterior perimeter**

a. Ideally 150 feet (45.72 meters) from the ambulance entrance (if required by the constraints of the structures involved, this may be no less than 30 feet (9.14 meters) from the ambulance entrance).

b. At a location where no windows or doors abut the defined area or where all doors are securable from the outside and all windows are capable of being shuttered.

c. Boundaries shall be defined on the paved ground surface with a yellow paint line and the word "DECON" painted within these boundaries.

d. At least two shower heads, temperature-controlled and separated by at least 6 feet (1.83 meters); a separate spigot for attachment of a hose.

e. Semipermanent or portable/collapsible structures (curtains, tents, etc.) that will provide shelter from the environment, privacy, and some containment of the contaminant/infectious agent.

f. Secured access to the hospital telephone system and a duplex electrical outlet for each two shower heads and no closer than 4 feet (1.22 meters) to any shower.

g. Exterior lighting to maximize visibility; appropriate for wet/shower facilities.

h. Negative airflow and ventilation system on the hospital perimeter wall but drawing air within the confines of the decontamination structure; exhausted directly to the outdoors, no less than 50 feet (15.24 meters) away from the decontamination site with no recirculation of air. This system shall be defunctionalized when the decontamination structure is not in use.

i. Water runoff shall be contained and disposed of safely to ensure that it does not enter community drainage systems. This shall be accomplished either by graded floor structures leading to a drain with a collection system separate from that of the hospital or by the use of plastic pools or specialized decontamination stretchers.

**Decontamination room within the facility**

a. Separate, independent, secured external entrance adjacent to

(3) Provisions for orthopedic and cast work. These may be in separate room(s) or in the trauma room.

(a) Space requirements. The clear floor space for this area shall be dependent on the functional

the ambulance entrance, but no less than 30 feet (9.14 meters) distant; lighted and protected from the environment in the same way as the ambulance entrance; a yellow painted boundary line 3 feet (0.91 meter) from each side of the door and extending 6 feet (1.83 meters) from the hospital wall; the word "DECON" painted within these boundaries.

b. Internal entrance to a corridor within the emergency area.

c. It shall have spatial requirements and the medical support services of a standard emergency area airborne infection isolation room, with air externally exhausted separate from the hospital system. It shall contain a work counter, hand-washing station with hands-free controls, an area for personnel gowning, and a storage area for supplies, as well as equipment for the decontamination process.

d. Ceiling, wall, and floor finishes shall be smooth, nonporous, scrubable, nonadsorptive, nonperforated, capable of withstanding cleaning with and exposure to harsh chemicals, nonslip, and without crevices or seams. Floors shall be self-coving to a height of 6 inches (15.24 centimeters). The surface of the floor shall be self-finished and require no protective coating for maintenance.

e. Two hospital telephones; two duplex electrical outlets, secured appropriately for a wet environment.

f. At least two hand-held shower heads, temperature-controlled; curtains or other devices to allow patient privacy, to the extent possible.

g. Appropriately heated and air-cooled for a room with an external door and very high relative humidity.

h. Water drainage must be contained and disposed of safely to ensure that it does not enter the hospital or community drainage systems. There should be a "saddle" at the floor of the door buck to prevent efflux.

i. A certified physicist or other qualified expert representing the owner or the state agency shall specify the type, location, and amount of radiation protection to be installed in accordance with final approved department layout and the functional program. These specifications shall be incorporated into the plans.

j. The decontamination area may function as an isolation room or a patient hygiene room under routine departmental function.

program and the procedures and equipment accommodated here.

- (b) Plaster trap. If a sink is used for the disposal of plaster of paris, a plaster trap shall be provided.
- (c) Equipment and supply storage. They shall include storage for splints and other orthopedic supplies, traction hooks, x-ray film illuminators, and examination lights.

\* (4) Diagnostic service areas. Convenient access to radiology and laboratory services shall be provided.

\* (5) Decontamination area

- (a) Location. In new construction, a decontamination room shall be provided with an outside entry door as far as practical from the closest other entrance. The internal door of this room shall open into a corridor of the emergency department, swing into the room, and be lockable against ingress from the corridor.
- (b) Space requirements. The room shall provide a minimum of 80 square feet (7.43 square meters) clear floor area.
- (c) Facility requirements
  - (i) The room shall be equipped with two hand-held shower heads with temperature

controls and dedicated holding tank with floor drain.

- (ii) Portable or hard-piped oxygen shall be provided. Portable suction shall also be available.

- (d) Construction requirements. The room shall have all smooth, nonporous, scrubable, nonadsorptive, nonperforated surfaces. Fixtures shall be acid resistant. The floor of the decontamination room shall be self-coving to a height of 6 inches (15.24 centimeters).

- (e) This section does not preclude decontamination capability at other locations or entrances immediately adjacent to the emergency department.

\* (6) Pediatric care

5.1.3.8 Special patient care areas

- (1) Airborne infection isolation room. At least one airborne infection isolation room shall be provided as described in Table 2.1-2 and Sections 2.1-3.2.2.2, 3.2.2.4 (2)(a) and (b), and 3.2.2.4 (4). The need for additional airborne infection isolation rooms or for protective environment rooms as described in Section 2.1-3.2.3 shall be determined by an ICRA.

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**A5.1.3.7 (6) Pediatric treatment rooms.** Provisions for the treatment of pediatric cases in dedicated pediatric room(s) within the unit should be provided. The quantity of dedicated rooms should depend on the census of the particular institution.

a. This area should include space for registration, discharge, triage, waiting, and a playroom. Pediatric designated rooms should be adjacent to a family waiting area and toilet. An area for the nurse station and physician station, storage for supplies and medication, and one to two isolation rooms should also be included.

b. Each examination/treatment room should have 100 square feet (9.29 square meters) of clear floor space, with a separate procedure/trauma room of 120 square feet (11.15 square meters) of

clear floor space. Each of these rooms should have hand-washing stations; vacuum, oxygen, and air outlets; examination lights; and wall/column-mounted ophthalmoscopes/otoscopes.

Where possible, rooms should be sized larger than 120 square feet (11.15 square meters) of clear area (exclusive of casework) to accommodate the additional equipment and escorts that accompany pediatric cases.

c. Particular attention should be paid to the soundproofing of these treatment rooms.

d. At least one room for pelvic examinations should be included.

e. X-ray illuminators should be available.

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### \* (2) Observation units

- (a) Each patient bed area shall have space at each bedside for visitors, and provision for visual privacy from casual observation by other patients and visitors.
  - (b) Hand-washing stations. Hand-washing stations shall be provided for each four treatment cubicles or major fraction thereof. Hand-washing stations shall be convenient to nurse stations and patient bed areas.
  - (c) Toilet room. One toilet room shall be provided for each eight treatment cubicles or major fraction thereof.
  - (d) Shower room. One shower room shall be provided for each sixteen treatment cubicles or major fraction thereof; the shower room and toilet room may be combined into the same room.
  - (e) Nourishment area. A nourishment station that may be shared shall be provided. It shall include a sink, work counter, refrigerator, storage cabinets, and equipment for hot and cold nourishment between scheduled meals.
- (3) Secure holding room. When required by the functional program, there shall be a secure holding

room. This room shall be designed to prevent injury to patients.

- (a) All finishes, light fixtures, vents and diffusers, and sprinklers shall be tamper resistant.
- (b) There shall not be any electrical outlets, medical gas outlets, or similar devices.
- (c) There shall be no sharp corners, edges, or protrusions, and the walls shall be free of objects or accessories of any kind.
- (d) Patient room doors shall swing out and shall have hardware on the exterior side only. Doors shall have an electric strike that is tied into the fire alarm.

### 5.1.3.9 Support areas for definitive emergency management facilities

- (1) Administrative center or nurse station for staff work and charting.
  - (a) These areas shall have space for counters, cabinets, and medication storage, and shall have convenient access to hand-washing stations.
  - (b) They are permitted to be combined with or

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**A5.1.3.8 (2)** Observation/holding units for patients requiring observation up to 23 hours or admission to an inpatient unit should be located separately but near the main emergency department. The size will depend upon the function (observation and/or holding), patient acuity mix, and projected utilization.

- a. As defined by the functional plan, this area should consist of a centralized nurse station; 100 square feet (9.29 square meters) of clear floor space for each cubicle, with vacuum, oxygen, and air outlets, monitoring space, and nurse call buttons.
- b. A patient bathroom should be provided.
- c. Storage space for medical and dietary supplies should be included.
- d. X-ray illuminators should be available.

**A5.1.3.9 (2)** A security station and/or system should be located to maximize visibility of the treatment areas, waiting areas, and key entrance sites.

- a. The system should include visual monitoring devices installed both internally in the emergency department as well as externally at entrance sites and parking lots.
- b. Special requirements for a security station should include accommodation for hospital security staff, local police officers, and monitoring equipment.
- c. Design consideration should include installation of silent alarms, panic buttons, and intercom systems, and physical barriers such as doors to patient entry areas.
- d. The security monitoring system should be included on the hospital's emergency power backup system.

include centers for reception and communication or poison control.

- (c) Nursing stations decentralized near clusters of treatment rooms are permitted.
- (d) Where feasible, visual observation of all traffic into the unit and of all patients shall be provided from the nursing station.
- \* (2) Security station. Where dictated by local needs, a security system shall be located near the emergency entrances and triage/reception area.
- (3) Poison control center and EMS communications center. If provided, they shall be permitted to be part of the staff work and charting area.
- (4) Scrub stations. Scrub stations located in or adjacent and convenient to each trauma and/or orthopedic room.
- (5) Provisions for disposal of solid and liquid waste. This may be a clinical sink with bedpan flushing device within the soiled workroom.
- (6) Clean workroom or clean supply room. A clean workroom or clean supply room shall be provided in accordance with Section 2.1-2.3.7. If the area serves children, additional storage shall be provided to accommodate supplies and equipment in the range of sizes required for pediatrics.
- \* (7) Soiled workroom or soiled holding room. A soiled workroom or soiled holding room shall be provided in accordance with Section 2.1-2.3.8 for the exclusive use of the emergency service.
- (8) Equipment and supply storage
  - (a) Wheelchair and stretcher storage. Storage for wheelchairs and stretchers for arriving patients shall be located out of traffic with convenient access from emergency entrances.
  - (b) Emergency equipment storage. Sufficient space shall be provided for emergency equipment (e.g., a CPR cart, pumps, ventilators, patient monitoring equipment, and portable x-ray unit) in accordance with Section 2.1-2.3.9.4.

- (9) Housekeeping room. A housekeeping room shall be directly accessible from the unit and shall contain a service sink or floor receptor and provisions for storage of supplies and housekeeping equipment.

#### 5.1.3.10 Support areas for staff

- (1) Staff lounge. Convenient and private access to staff toilets, lounge, and lockers shall be provided.
- (2) Staff storage facilities. Securable closets or cabinet compartments shall be provided for the personal effects of emergency service personnel in accordance with Section 2.1-2.4.3.

#### \*5.1.3.11 Support areas for patients

- \* (1) Bereavement room
- (2) Patient toilet room. A minimum of one patient toilet room per eight treatment rooms or fraction thereof shall be provided, with hand-washing station(s) in each toilet room.

## 5.2 Freestanding Emergency Service

### 5.2.1 Definition

Freestanding emergency service shall mean an extension of an existing hospital emergency department that is physically separate from the main hospital emergency department and that is intended to provide comprehensive emergency service. A service that does not provide 24-hour-a-day, seven-day-a-week operation

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**A5.1.3.9 (7)** Disposal space for regulated medical waste (e.g., gauzes/linens soaked with body fluids) should be separate from routine disposal space.

**A5.1.3.11** Other space considerations. Provision of a patient hygiene room with shower and toilet facilities should be considered.

**A5.1.3.11 (1)** At least one bereavement room should be provided. This room should be accessible from both the emergency treatment corridor and the emergency waiting area. This room should be comfortable enough to provide respite to the bereaved family and should be equipped with a sound transmission coefficient equivalent to 65 for the walls and 45 for the floors and ceiling.

## 2.1 GENERAL HOSPITALS

or that is not capable of providing basic services as defined for hospital emergency departments shall not be classified as a freestanding emergency service and shall be described under other portions of this document.

5.2.1.1 Physically separate from the main hospital means not located on the same campus.

### 5.2.2 Facility Requirements

Except as noted in the following sections, the requirements for freestanding emergency service shall be the same as for hospital emergency service as described in Section 2.1-5.1.

5.2.2.1 General. See Section 2.1-5.1.1.

5.2.2.2 Initial emergency management. See Section 2.1-5.1.2.

5.2.2.3 Definitive emergency care. See Section 2.1-5.1.3.

5.2.2.4 Support areas. See Sections 2.1-5.1.3.9 through 2.1-5.1.3.11.

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### A5.3 Surgery

a. The size and location of the surgical procedure rooms shall be determined by the level of care to be provided. The levels of care as defined by the American College of Surgeons are as follows:

Class A: Provides for minor surgical procedures performed under topical, local, or regional anesthesia without pre-operative sedation. Excluded are intravenous, spinal, and epidural routes; these methods are appropriate for Class B and Class C facilities.

Class B: Provides for minor or major surgical procedures performed in conjunction with oral, parenteral, or intravenous sedation or under analgesic or dissociative drugs.

Class C: Provides for major surgical procedures that require general or regional block anesthesia and support of vital bodily functions.

b. When invasive procedures are performed on patients known or suspected to have pulmonary tuberculosis, these procedures should not be performed in the operating suite. They should be performed in a room meeting airborne infection isolation room ventilation requirements or in a space using local exhaust ventilation. If the procedure must be performed in the operating suite, see the "CDC Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis in Health Care Facilities."

### 5.2.3 Additional Requirements

The freestanding emergency service shall have the following capabilities and/or functions within the facility:

#### 5.2.3.1 Diagnostic and treatment areas

- (1) Diagnostic imaging. This shall include radiography and fluoroscopy.
- (2) Observation beds. At least one of these shall have full cardiac monitoring.
- (3) Laboratory. These facilities shall accommodate those functions described in Section 2.1-5.11.

#### 5.2.3.2 Service areas

- (1) Pharmacy
- (2) Provision for serving patient and staff meals shall be provided. A kitchen or a satellite serving facility shall be permitted.
- (3) Support services and functions shall include housekeeping, laundry, general stores, maintenance and plant operations, and security.

### \*5.3 Surgery

#### 5.3.1 Surgical Suites

Note: Additions to, and adaptations of, the following elements shall be made for the special procedure operating rooms found in larger facilities.

5.3.1.1 Size. The number of operating rooms and recovery beds and the sizes of the support areas shall be based on the expected surgical workload.

#### 5.3.1.2 Layout

- (1) The surgical suite shall be located and arranged to prevent nonrelated traffic through the suite.
- (2) The clinical practice setting shall be designed to facilitate movement of patients and personnel into, through, and out of defined areas within the surgical suite. Signs shall clearly indicate the surgical attire required.

(3) An operating room suite design with a sterile core shall provide for no cross-traffic of staff and supplies from the soiled/decontaminated areas to the sterile/clean areas. The use of facilities outside the operating room for soiled/decontaminated processing and clean assembly and sterile processing shall be designed to move the flow of goods and personnel from dirty to clean/sterile without compromising universal precautions or aseptic techniques in both departments.

(4) The surgical suite shall be divided into three designated areas—unrestricted, semirestricted, and restricted—defined by the physical activities performed in each area.

(a) Unrestricted area

(i) The unrestricted area includes a central control point established to monitor the entrance of patients, personnel, and materials.

(ii) Street clothes are permitted in this area and traffic is not limited.

(b) Semirestricted area

(i) The semirestricted area includes the peripheral support areas of the surgical suite. It has storage areas for clean and sterile supplies, work areas for storage and processing of instruments, and corridors leading to the restricted areas of the surgical suite.

(ii) Traffic in this area is limited to authorized personnel and patients. Personnel are required to wear surgical attire and cover all head and facial hair.

(c) Restricted area

(i) The restricted area includes operating and procedure rooms, the clean core, and scrub sink areas.

(ii) Surgical attire and hair coverings are required. Masks are required where open

sterile supplies or scrubbed persons may be located.

5.3.1.3 Provision of outpatient surgery. In the functional program, the size, location, and configuration of the surgical suite and support areas shall reflect the projected volume of outpatients. This may be achieved by designing either an outpatient surgery facility or a combined inpatient/outpatient surgical suite.

(1) Hospital surgical suite. Where outpatient surgery is provided in the surgical suite of the hospital facility, it shall comply with the requirements for outpatient surgery in Chapter 3.7, Outpatient Surgical Facility.

(2) Separate hospital unit or outpatient surgical facility. Where outpatient surgery and post-anesthetic care is provided in a separate unit of the hospital facility or in a separate outpatient surgical facility, it shall comply with the requirements for outpatient surgery in Chapter 3.7.

5.3.2 Operating and Procedure Rooms

5.3.2.1 General operating room(s)

(1) New construction

(a) Space requirements. Each room shall have a minimum clear area of 400 square feet (37.16 square meters) exclusive of fixed or wall-mounted cabinets and built-in shelves, with a minimum of 20 feet (6.10 meters) clear dimension between fixed cabinets and built-in shelves.

(b) Communication system. Each room shall have a system for emergency communication with the surgical suite control station.

(c) X-ray viewers. X-ray film viewers for handling at least four films simultaneously or digital image viewers shall be provided.

(d) Construction requirements. Operating room perimeter walls, ceiling, and floors, including penetrations, shall be sealed. (See Glossary.)

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- \* (2) Renovation. Where renovation work is undertaken, every effort shall be made to meet the above minimum standards. If it is not possible to meet the above square-footage standards, each room shall have a minimum clear area of 360 square feet (33.45 square meters), exclusive of fixed or wall-mounted cabinets and built-in shelves, with a minimum of 18 feet (5.49 meters) clear dimension between fixed cabinets and built-in shelves.

### 5.3.2.2 Room(s) for cardiovascular, orthopedic, neurological, and other special procedures that require additional personnel and/or large equipment

- (1) Space requirements. When included, these room(s) shall have, in addition to the above requirements for general operating rooms, a minimum clear area of 600 square feet (55.74 square meters), with a minimum of 20 feet (6.10 meters) clear dimension exclusive of fixed or wall-mounted cabinets and built-in shelves.
- (2) Pump room. Where open-heart surgery is performed, an additional room in the restricted area of the surgical suite, preferably adjoining this operating room, shall be designated as a pump room where extra corporeal pump(s), supplies, and accessories are stored and serviced.
- (3) Equipment storage rooms. Where complex orthopedic and neurosurgical surgery is performed, additional rooms shall be in the restricted area of the surgical suite, preferably adjoining the specialty operating rooms, which shall be designated as equipment storage rooms for the large equipment used to support these procedures.
- (4) Plumbing and electrical connections. Appropriate plumbing and electrical connections shall be

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**A5.3.2.1 (2)** The functional program may require additional clear space, plumbing, and mechanical facilities to accommodate special functions in one or more of these rooms. When existing functioning operating rooms are modified, and it is impractical to increase the square footage because of walls or structural members, the operating room may continue in use when requested by the hospital.

provided in the cardiovascular, orthopedic, neurosurgical, pump, and storage rooms.

- (5) Renovation. Where renovation work is undertaken, every effort shall be made to meet the above minimum standards. If it is not possible to meet the above square-footage standards, the following standards shall be met:
  - (a) Orthopedic surgical rooms shall have a minimum clear area of 360 square feet (33.45 square meters), with a minimum dimension of 18 feet (5.49 meters).
  - (b) Rooms for cardiovascular, neurological, and other special procedures shall have a minimum clear area of 400 square feet (37.16 square meters).

### 5.3.2.3 Additional requirements for orthopedic surgery

- (1) Equipment storage. Where included, this room shall, in addition to the above requirements, have enclosed storage space for splints and traction equipment. Storage may be outside the operating room but must be conveniently located.
- (2) Plaster trap. If a sink is used for the disposal of plaster of paris, a plaster trap shall be provided.

### 5.3.2.4 Room(s) for surgical cystoscopic and other endourologic procedures

- (1) Space requirements
  - (a) This room shall have a minimum clear area of 350 square feet (32.52 square meters) exclusive of fixed or wall-mounted cabinets and built-in shelves, with a minimum of 15 feet (4.57 meters) clear dimension between fixed cabinets and built-in shelves.
  - (b) In renovation projects, rooms for surgical cystoscopy shall be permitted to have a minimum clear area of 250 square feet (23.23 square meters).
- (2) X-ray viewer. X-ray viewing capability to accommodate at least four films simultaneously shall be provided.

5.3.2.5 Endoscopy suite. See Chapter 3.9, Gastrointestinal Endoscopy Facilities.

### 5.3.3 Pre- and Postoperative Holding Areas

5.3.3.1 Preoperative patient holding area(s). In facilities with two or more operating rooms, areas shall be provided to accommodate stretcher patients as well as sitting space for ambulatory patients.

- (1) Location. These areas shall be under the direct visual control of the nursing staff and may be part of the recovery suite to achieve maximum flexibility in managing surgical caseloads.
- (2) Space requirements. Each stretcher station shall be a minimum of 80 square feet (7.43 square meters) exclusive of general circulation space through the ward and shall have a minimum clearance of 4 feet (1.22 meters) on the sides of the stretchers and the foot of the stretchers.
- (3) Patient privacy. Provisions such as cubicle curtains shall be made for patient privacy.
- (4) Provisions shall be made for the isolation of infectious patients.
- (5) An airborne infection isolation room is not required in a preoperative holding area. Provisions for the recovery of a potentially infectious patient with an airborne infection shall be determined by an ICRA.

#### \*5.3.3.2 Post-anesthetic care units (PACUs)

- (1) Space requirements. The design shall provide a minimum of 80 square feet (7.43 square meters) for each patient bed, exclusive of general circulation space within the PACU, with a space for additional equipment described in the functional program and for clearance of at least 5 feet (1.52 meters) between patient beds and 4 feet (1.22 meters) between patient bedsides and adjacent walls.
- (2) Layout. In new construction, at least one door to the recovery room shall provide access directly from the surgical suite without crossing public hospital corridors.

- (3) Patient privacy. Provisions for patient privacy such as cubicle curtains shall be made.
- (4) Facility requirements. Each PACU shall contain a medication station; hand-washing stations; nurse station with charting facilities; clinical sink; provisions for bedpan cleaning; and storage space for stretchers, supplies, and equipment.
  - (a) Hand-washing station(s). At least one hand-washing station with hands-free or wrist blade-operable controls shall be available for every four beds, uniformly distributed to provide equal access from each bed.
  - (b) Staff toilet. A staff toilet shall be located within the working area to maintain staff availability to patients.
- (5) Provisions shall be made for the isolation of infectious patients.
- (6) An airborne infection isolation room (AIIR) is not required in a PACU. Provisions for the recovery of a potentially infectious patient with an airborne infection shall be determined by an ICRA.

5.3.3.3 Phase II recovery. Where outpatient surgeries are to be part of the surgical suite, and where outpatients receive Class B or Class C sedation, a separate Phase II or step-down recovery room shall be provided.

- (1) Layout. In new construction, at least one door shall access the PACU without crossing unrestricted corridors of the hospital.
- (2) Space requirements
  - (a) The design shall provide a minimum of 50 square feet (4.65 square meters) for each patient in a lounge chair, with space for additional equipment described in the functional

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**A5.3.3.2** Separate and additional recovery space may be necessary to accommodate patients. If children receive care, recovery space should be provided for pediatric patients and the layout of the surgical suite should facilitate the presence of parents in the PACU.

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program and for clearance of 4 feet (1.22 meters) on the sides of the lounge chairs and the foot of the lounge chairs.

- (b) A minimum clear floor area of 100 square feet (9.29 square meters) shall be provided in single-bed rooms.
- (3) Patient privacy. Provisions for patient privacy such as cubicle curtains shall be made.
- (4) Facility requirements. The room shall contain hand-washing stations, a nurse station with charting facilities, clinical sink, provision for bedpan cleaning, and storage space for supplies and equipment.
  - (a) Hand-washing stations
    - (i) A hand-washing station shall be provided in each room.
    - (ii) At least one hand-washing station with hands-free operable controls shall be provided for every four lounge chairs, uniformly distributed to provide equal access from each lounge chair.
  - (b) Toilet rooms
    - (i) Staff toilet. A staff toilet shall be provided with direct access to the working area to maintain staff availability to patients.
    - (ii) Patient toilet. A patient toilet shall be provided with direct access to the Phase II recovery unit for the exclusive use of patients.
- (5) Provisions shall be made for the isolation of infectious patients.
- (6) An airborne infection isolation room is not required in a Phase II recovery area. Provisions for the recovery of a potentially infectious patient with an airborne infection shall be determined by an ICRA.

### 5.3.4 Diagnostic and Treatment Locations

5.3.4.1 Examination provisions. Provisions shall be made for patient examination, interviews, preparation, testing, and obtaining vital signs of patients for outpatient surgery.

5.3.4.2 Area for preparation and examination of frozen sections. This area may be part of the general laboratory if immediate results are obtainable without unnecessary delay in the completion of surgery.

### 5.3.5 Support Areas for the Surgical Suite

Support areas, except for the enclosed soiled workroom mentioned in Section 2.1-5.3.5.10 and the housekeeping room in Section 2.1-5.3.5.14, may be shared with the obstetrical facilities in accordance with the functional program. Support areas, where shared with delivery rooms, shall be designed to avoid the passing of patients or staff between the operating room and the delivery room areas. The following shall be provided:

5.3.5.1 A control station. This shall be located to permit visual observation of all traffic into the suite.

5.3.5.2 A supervisor office or station. The number of offices, stations, and teaching areas in the surgical suite shall depend upon the functional program.

5.3.5.3 Documentation area. The dictation and report preparation area may be accessible from the lounge area.

5.3.5.4 Scrub facilities. Two scrub positions shall be provided near the entrance to each operating room.

- (1) Two scrub positions may serve two operating rooms if both positions are adjacent to the entrance of each operating room.
- (2) Scrub facilities shall be arranged to minimize incidental splatter on nearby personnel, medical equipment, or supply carts.
- (3) In new construction, view windows at scrub stations permitting observation of room interiors shall be provided.
- (4) The scrub sinks shall be recessed into an alcove out of the main traffic areas. The alcove shall be

located off the semirestricted or restricted areas of the surgical suite.

5.3.5.5 Medication station. Provision shall be made for storage and distribution of drugs and routine medications in accordance with Section 2.1-2.3.4.

5.3.5.6 Ice machine. An ice machine shall be provided in accordance with Section 2.1-2.3.6.

5.3.5.7 Patient holding area. In facilities with two or more operating rooms, an area shall be provided to accommodate stretcher patients waiting for surgery. This holding area shall be under the visual control of the nursing staff.

5.3.5.8 A substerile service areas(s). This area acts as a service area between two or more operating or procedure rooms. Other facilities for processing and sterilizing reusable instruments, etc., are typically located in another hospital department, such as central services.

- (1) It shall be equipped with a flash sterilizer, warming cabinet, sterile supply storage area, and hand-washing station with hands-free controls.
- (2) A sterilizing facility(ies) with high-speed sterilizer(s) or other sterilizing equipment for immediate or emergency use shall be grouped to service several operating rooms for convenient, efficient use.
- (3) A work space and hand-washing station shall be provided if required by the functional program.

5.3.5.9 Clean workroom or clean supply room. Soiled and clean workrooms or holding rooms shall be separated. The clean workroom or supply room shall not be used for food preparation.

- (1) Storage space for sterile and clean supplies shall be sized to meet the functional program. The space shall be moisture and temperature controlled and free from cross-traffic.
- (2) Clean workroom. A clean workroom shall be provided when clean materials are assembled within the surgical suite prior to use or following the decontamination cycle.

(a) It shall contain a work counter, a hand-washing station, storage facilities for clean supplies, and a space to package reusable items.

(b) The storage for sterile supplies must be separated from this space.

(3) Clean supply room. If the room is used only for storage and holding as part of a system for distribution of clean and sterile supply materials, the work counter and hand-washing station may be omitted.

5.3.5.10 Soiled workroom or holding room. Soiled and clean workrooms or holding rooms shall be separated.

- (1) An enclosed soiled workroom (or soiled holding room that is part of a system for the collection and disposal of soiled material) shall be provided for the exclusive use of the surgical suite.
- (2) The room shall be located in the restricted area.
- (3) The soiled workroom shall contain a flushing-rim clinical sink or equivalent flushing-rim fixture, a hand-washing station, a work counter, and space for waste receptacles and soiled linen receptacles. Rooms used only for temporary holding of soiled material may omit the flushing-rim clinical sink and work counters. However, if the flushing-rim clinical sink is omitted, other provisions for disposal of liquid waste shall be provided.
- (4) The room shall not have direct connection with operating rooms or other sterile activity rooms.

5.3.5.11 Anesthesia workroom. An anesthesia workroom for cleaning, testing, and storing anesthesia equipment.

- (1) This room shall contain work counter(s) and sink(s) and racks for cylinders.
- (2) Provisions shall be made for separate storage of clean and soiled items.
- (3) In new construction, depending on the functional and space programs, the anesthesia workroom shall provide space for anesthesia case carts and other anesthesia equipment.

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### 5.3.5.12 Storage for blood, organs, and pathological specimens

- (1) Provisions for refrigerated blood bank storage that meets the standards of the American Blood Banking Association shall be provided.
- (2) Storage for harvested organs. Where applicable, refrigeration facilities for harvested organs shall be provided.

### 5.3.5.13 Storage for pathological specimens. Provisions for storage of pathological specimens prior to transfer to pathology section shall be provided.

### 5.3.5.14 Equipment and supply storage

- \* (1) Storage room(s) shall be provided for equipment and supplies used in the surgical suite. Each surgical suite shall provide sufficient storage area to keep its required corridor width free of equipment and supplies, but not less than 150 square feet (13.94 square meters) or 50 square feet (4.65 square meters) per operating room, whichever is greater.
- (2) Storage areas shall be provided for portable x-ray equipment, stretchers, fracture tables, warming devices, auxiliary lamps, etc. These areas shall be out of corridors and traffic.
- (3) Medical gas storage. Main storage of medical gases may be outside or inside the facility in accordance with NFPA 99. Provision shall be made for additional separate storage of reserve gas cylinders necessary to complete at least one day's procedures.

### 5.3.5.15 Housekeeping facilities. Housekeeping facilities shall be provided for the exclusive use of the surgical suite. They shall be directly accessible from the suite and shall contain a service sink or floor receptor and

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**5.3.5.14 (1)** Equipment storage room(s) for equipment and supplies used in the surgical suite should be strategically located and sized for convenient access and utilization. In larger surgical suites, storage spaces should be located for ready access to specialty rooms.

provisions for storage of supplies and housekeeping equipment.

### 5.3.6 Support Areas for Staff

#### 5.3.6.1 Staff lounge and toilet facilities

- (1) Separate or combined lounges shall be provided for male and female staff.
- (2) Lounge(s) shall be designed to minimize the need to leave the suite and to provide convenient access to the recovery room.

#### 5.3.6.2 Staff clothing change areas. Appropriate areas shall be provided for male and female personnel (orderlies, technicians, nurses, and doctors) working within the surgical suite.

- (1) The areas shall contain lockers, showers, toilets, hand-washing stations, and space for donning surgical attire.
- (2) These areas shall be arranged to encourage a one-way traffic pattern so that personnel entering from outside the surgical suite can change and move directly into the surgical suite.

### 5.3.7 Support Areas for Patients

**5.3.7.1 Patient clothing change areas.** If the functional program defines outpatient surgery as part of the surgical suite, a separate area shall be provided where outpatients and same-day admission patients may change from street clothing into hospital gowns and be prepared for surgery.

- (1) It shall include a waiting room, locker(s), toilet(s), and clothing change or gowning area.
- (2) Where private holding room(s) or cubicle(s) are provided, a separate change area is not required.

## 5.4 Interventional Imaging Facilities

### 5.4.1 Cardiac Catheterization Lab (Cardiology)

**5.4.1.1 Location.** The cardiac catheterization lab is normally a separate suite, but location in the imaging suite shall be permitted provided the appropriate sterile environment is provided. See Section 2.1-5.5.7.

## 5.4.1.2 Space requirements

## (1) Procedure rooms

- (a) The number of procedure rooms shall be based on expected utilization.
- (b) The procedure room shall be a minimum of 400 square feet (37.16 square meters) exclusive of fixed cabinets and shelves.

- (2) Prep, holding, and recovery rooms. The size of the prep, holding, and recovery areas shall be based on expected utilization.

5.4.1.3 Electrophysiology labs. If electrophysiology labs are also provided in accordance with the approved functional program, these labs may be located within and integral to the catheterization suite or located in a separate functional area proximate to the cardiac care unit.

## 5.4.1.4 Support areas for the cardiac catheterization lab

- (1) Scrub facilities. Scrub facilities with hands-free operable controls shall be provided adjacent to the entrance of procedure rooms, and shall be arranged to minimize incidental splatter on nearby personnel, medical equipment, or supplies.
- (2) Patient prep, holding, and recovery area or room. A patient preparation, holding, and recovery area or room shall be provided and arranged to provide visual observation before and after the procedure.
- (3) Control room or area. A control room or area shall be provided and shall be large enough to contain and provide for the efficient functioning of the x-ray and image recording equipment. A view window permitting full view of the patient from the control console shall be provided.
- (4) Electrical equipment room. An equipment room or enclosure large enough to contain x-ray transformers, power modules, and associated electronics and electrical gear shall be provided.
- (5) Viewing room. A viewing room shall be available for use by the cardiac catheterization suite.

- (6) Clean workroom or clean supply room. A clean workroom or clean supply room shall be provided in accordance with Section 2.1-2.3.7.

- (7) Soiled workroom or soiled holding room. A soiled workroom shall be provided in accordance with Section 2.1-2.3.8.

- (8) Film file room. Film file room shall be available for use by the cardiac catheterization suite.

- (9) Housekeeping closet. A housekeeping closet shall be provided in accordance with Section 2.1-2.3.10.

## 5.4.1.5 Support areas for staff

- (1) Staff clothing change area(s). Staff change area(s) shall be provided and arranged to ensure a traffic pattern so that personnel can enter from outside the suite, change their clothing, and move directly into the cardiac catheterization suite.

## 5.5 Imaging Suite

## 5.5.1 General

\*5.5.1.1 Functional program. Equipment and space shall be as necessary to accommodate the functional program. The imaging department provides diagnostic procedures. An imaging department commonly includes fluoroscopy, radiography, mammography, tomography, computerized tomography scanning, ultrasound, magnetic resonance, angiography, and similar techniques.

\*5.5.1.2 Layout. Beds and stretchers shall have ready

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**A5.5.1.1** Space layouts should be developed in compliance with manufacturer's recommendations because area requirements may vary from machine to machine. Since technology changes frequently and from manufacturer to manufacturer, rooms can be sized larger to allow upgrading of equipment over time.

**A5.5.1.2** Particular attention should be paid to the management of outpatients for preparation, holding, and observation. The emergency, surgery, cystoscopy, and outpatient clinics should be accessible to the imaging suite. Imaging should be located on the ground floor, if practical, because of equipment ceiling height requirements, close proximity to electrical services, and expansion considerations.

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access to and from other departments of the institution.

5.5.1.3 Radiation protection. Most imaging requires radiation protection. A certified physicist or other qualified expert representing the owner or appropriate state agency shall specify the type, location, and amount of radiation protection to be installed in accordance with the final approved department layout and equipment selections.

- (1) Where protected alcoves with view windows are required, a minimum of 1 foot 6 inches (45.72 centimeters) shall be provided between the view window and the outside partition edge.
- (2) Radiation protection requirements shall be incorporated into the specifications and the building plans.

### 5.5.1.4 Construction requirements

- (1) Floor. Floor shall be adequate to meet load requirements.
- (2) Ceiling. A lay-in type ceiling shall be permitted to be considered for ease of installation, service, and remodeling.

### 5.5.2 Angiography

#### 5.5.2.1 General

- \* (1) Space requirements. Space shall be provided as necessary to accommodate the functional program.

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A5.5.2.1 (1) The procedure room should be a minimum of 400 square feet (37.16 square meters).

A5.5.2.3 Viewing areas should be a minimum of 10 feet (3.05 meters) in length.

A5.5.2.6 A patient holding area should be provided to accommodate two stretchers with additional spaces for additional procedure rooms.

A5.5.4.1 Radiography rooms should be a minimum of 180 square feet (16.72 square meters). (Dedicated chest X-ray may be smaller.)

A5.5.4.2 Tomography and radiography/fluoroscopy (R&F) rooms should be a minimum of 250 square feet (23.23 square meters).

- (2) Provision shall be made within the facility for extended post-procedure observation of outpatients.

5.5.2.2 Control room. A control room shall be provided as necessary to accommodate the functional program. A view window shall be provided to permit full view of the patient.

\*5.5.2.3 Viewing area. A viewing area shall be provided.

5.5.2.4 Scrub facilities. A scrub sink located outside the staff entry to the procedure room shall be provided for use by staff.

5.5.2.5 Equipment storage. Storage for portable equipment and catheters shall be provided.

\*5.5.2.6 Patient holding area. A patient holding area shall be provided.

### 5.5.3 Computerized Tomography (CT) Scanning

5.5.3.1 Space requirements. CT scan rooms shall be as required to accommodate the equipment.

5.5.3.2 Control room. A control room shall be provided that is designed to accommodate the computer and other controls for the equipment.

- (1) A view window shall be provided to permit full view of the patient.

- (2) The angle between the control and equipment centroid shall permit the control operator to see the patient's head.

- (3) The control room shall be located to allow convenient film processing.

5.5.3.4 Patient toilet. A patient toilet shall be provided. It shall be convenient to the procedure room and, if directly accessible to the scan room, arranged so a patient can leave the toilet without having to reenter the scan room.

### 5.5.4 Diagnostic X-Ray

\*5.5.4.1 Space requirements. Radiography rooms shall be of a size to accommodate the functional program.

\*5.5.4.2 Tomography, radiography/fluoroscopy rooms

- (1) Separate toilets with hand-washing stations shall be provided with direct access from each fluoroscopic room so that a patient can leave the toilet without having to reenter the fluoroscopic room.
- (2) Rooms used only occasionally for fluoroscopic procedures shall be permitted to use nearby patient toilets if they are located for immediate access.

#### \*5.5.4.3 Mammography rooms

##### 5.5.4.4 Shielded control alcoves

- (1) Each x-ray room shall include a shielded control alcove. This area shall be provided with a view window designed to provide full view of the examination table and the patient at all times, including full view of the patient when the table is in the tilt position or the chest x-ray is in use.
- (2) For mammography machines with built-in shielding for the operator, the alcove shall be permitted to be omitted when approved by the certified physicist or state radiation protection agency.

#### 5.5.5 Magnetic Resonance Imaging (MRI)

##### 5.5.5.1 Space requirements

- (1) Space shall be provided as necessary to accommodate the functional program.
- (2) The MRI room shall be permitted to range from 325 square feet (30.19 square meters) to 620 square feet (57.60 square meters), depending on the vendor and magnet strength.

5.5.5.2 Layout. When spectroscopy is provided, caution shall be exercised in locating it in relation to the magnetic fringe fields.

\*5.5.5.3 Control room. A control room shall be provided with full view of the MRI.

\*5.5.5.4 Patient holding area. A patient holding area shall be provided.

\*5.5.5.5 Computer room. A computer room shall be provided.

\*5.5.5.6 Darkroom. A darkroom shall be provided.

\*5.5.5.7 Cryogen storage. Cryogen storage shall be provided.

##### 5.5.5.8 Equipment installation requirements

\* (1) Power conditioning shall be provided.

\* (2) Magnetic shielding shall be provided.

- (3) For super-conducting MRI, cryogen venting and emergency exhaust must be provided in accordance with the original equipment manufacturer's specifications.

#### 5.5.6 Ultrasound

5.5.6.1 Space requirements. Space shall be provided as necessary to accommodate the functional program.

5.5.6.2 Patient toilet. A patient toilet, accessible from the procedure room, shall be provided.

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A5.5.4.3 Mammography rooms should be a minimum of 100 square feet (9.29 square meters).

A5.5.5.3 Control rooms should be a minimum of 100 square feet (9.29 square meters), but may be larger depending on the vendor and magnet size.

A5.5.5.4 When patient holding areas are provided, they should be located near the MRI unit and should be large enough to accommodate stretcher(s).

A5.5.5.5 A computer room may range from 150 square feet (13.94 square meters) to 380 square feet (35.30 square meters) depending on the vendor and magnet strength. Self-contained air conditioning supplement is normally required.

A5.5.5.6 A darkroom may be required for loading cassettes and shall be located near the control room. This darkroom shall be outside the 10-gauss field.

A5.5.5.7 Cryogen storage may be required in areas where service to replenish supplies is not readily available. When provided, space should be a minimum of 50 square feet (4.65 square meters) to accommodate two large dewars of cryogen.

A5.5.5.8 (1) Power conditioning and voltage regulation equipment as well as direct current (DC) may be required.

## 2.1 GENERAL HOSPITALS

### 5.5.7 Cardiac Catheterization Lab (Cardiology)

The cardiac catheterization lab is normally a separate suite (see Section 2.1-5.4.1) but location within the imaging suite shall be permitted provided the appropriate sterile environment is provided. Combination with angiography shall be permitted in low usage situations.

### 5.5.8 Support Areas for the Imaging Suite

The following spaces are common to the imaging department and are minimum requirements unless stated otherwise:

#### 5.5.8.1 Control desk and reception area

5.5.8.2 Offices for radiologist(s) and assistant(s). Offices shall include provisions for viewing, individual consultation, and charting of film.

#### 5.5.8.3 Hand-washing stations

- (1) Hand-washing stations shall be provided within each procedure room unless the room is used only for routine screening such as chest x-rays where the patient is not physically handled by the staff.
- (2) Hand-washing stations shall be provided convenient to the MRI room, but need not be within the room.

5.5.8.4 Consultation area. An appropriate area for individual consultation with referring clinicians shall be provided.

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**A5.5.8 (2)** Magnetic shielding may be required to restrict the magnetic field plot. Radio frequency shielding may be required to attenuate stray radio frequencies. The area around, above and below the MRI suite shall be reviewed and evaluated for the following:

- Possible occupancy by person(s) who could have pacemakers or other metal implants.
- Equipment that can be disrupted by a magnetic field. Examples include but are not limited to personal computers, monitors, CT scanners, and nuclear cameras.

After reviewing and evaluating the surrounding space, appropriate magnetic shielding should be provided based upon the type of MRI scanner to be installed.

5.5.8.5 Patient holding area. A convenient holding area under staff control shall be provided to accommodate inpatients on stretchers or beds.

5.5.8.6 Clerical offices/spaces. Office space shall be provided as necessary for the functional program.

#### 5.5.8.7 Film processing room

- (1) If film systems are used, a darkroom shall be provided for processing film unless the processing equipment normally used does not require a darkroom for loading and transfer. When daylight processing is used, the darkroom shall be permitted to be minimal for emergency and special uses.
- (2) Film processing shall be located convenient to the procedure rooms and to the quality control area.

5.5.8.8 Quality control area. An area or room shall be provided near the processor for viewing film immediately after it is processed. All view boxes shall be illuminated to provide light of the same color value and intensity for appropriate comparison of several adjacent films.

#### 5.5.8.9 Contrast media preparation

- (1) If contrast media are used, this area shall include a sink, counter, and storage to allow for mixing of contrast media.
- (2) One preparation room, if conveniently located, shall be permitted to serve any number of rooms.
- (3) Where pre-prepared media are used, this area shall be permitted to be omitted, but storage shall be provided for the media.

5.5.8.10 Cleanup facilities. Provisions for cleanup shall be located within the suite for convenient access and use.

- (1) The facilities shall include service sink or floor receptacle as well as storage space for equipment and supplies.
- (2) If automatic film processors are used, a receptacle of adequate size with hot and cold water for cleaning the processor racks shall be provided.

**5.5.8.11 Clean storage.** Provision shall be made for the storage of clean supplies and linens. If conveniently located, storage shall be permitted to be shared with another department.

**5.5.8.12 Soiled holding.** Provision shall be made for soiled holding. Separate provisions for contaminated handling and holding shall be made. Hand-washing stations shall be provided.

#### 5.5.8.13 Film storage

- (1) Film storage (active). A room with cabinet or shelves for filing patient film for immediate retrieval shall be provided.
- (2) Film storage (inactive). A room or area for inactive film storage shall be provided. It shall be permitted to be outside the imaging suite, but must be under imaging's administrative control and properly secured to protect films against loss or damage.
- (3) Storage for unexposed film. If film systems are used, storage facilities for unexposed film shall include protection of film against exposure or damage and shall not be warmer than the air of adjacent occupied spaces.

**5.5.8.14 Medication storage.** Provision shall be made for locked storage of medications and drugs.

#### 5.5.9 Support Areas for Staff

The following spaces are common to the imaging department and are minimum requirements unless stated otherwise:

**5.5.9.1 Staff lounge.** Staff lounge with lockers shall be permitted to be outside the suite but shall be convenient for staff use.

**5.5.9.2 Staff toilets.** Toilets shall be permitted to be outside the suite but shall be convenient for staff use. In suites of three or more procedure rooms, toilets internal to the suite shall be provided.

#### 5.5.10 Support Areas for Patients

The following spaces are common to the imaging department and are minimum requirements unless stated otherwise:

#### 5.5.10.1 Patient waiting area

- (1) The area shall be out of traffic, under staff control, and shall have seating capacity in accordance with the functional program.
- (2) If the suite is routinely used for outpatients and inpatients at the same time, separate waiting areas shall be provided with screening for visual privacy between them.
- (3) If so determined by an ICRA, the diagnostic imaging waiting area shall require special measures to reduce the risk of airborne infection transmission. These measures shall include enhanced general ventilation and air disinfection techniques similar to inpatient requirements for airborne infection isolation rooms (see Table 2.1-2). See the "CDC Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis in Health Care Facilities."

**5.5.10.2 Patient toilet rooms.** Toilet rooms with hand-washing stations convenient to the waiting rooms and equipped with an emergency call system shall be provided.

**5.5.10.3 Patient dressing rooms.** Dressing rooms shall be provided convenient to the waiting areas and x-ray rooms. Each room shall include a seat or bench, mirror, and provisions for hanging patients' clothing and securing valuables.

### 5.6 Nuclear Medicine

#### 5.6.1 General

**\*5.6.1.1 Space requirements.** Space shall be provided as necessary to accommodate the functional program. Where the functional program calls for it, nuclear medicine procedure room(s) shall accommodate the equipment specified in the functional program, a stretcher, exercise equipment (treadmill and/or bicycle), and staff work space.

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**A5.6.1.1** Nuclear medicine may include positron emission tomography, which is not common to most facilities. It requires specialized planning for equipment.

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5.6.1.2 Radiation protection requirements. A certified physicist or other qualified expert representing the owner or state agency shall specify the type, location, and amount of radiation protection to be installed in accordance with final approved department layout and equipment selection. These specifications shall be incorporated into the plans.

5.6.1.3 Construction requirements. Provision for wiring raceways, ducts, or conduits shall be made in floors, walls, and ceilings. Ceiling-mounted equipment shall have properly designed rigid support structures located above the finished ceiling.

### 5.6.2 Radiopharmacy

If radiopharmaceutical preparation is performed on-site, an area adequate to house a radiopharmacy shall be provided with appropriate shielding.

#### 5.6.2.1 Space requirements

- (1) This area shall include adequate space for storage

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### A5.6.3 Positron Emission Tomography (PET) Facilities

#### Space requirements

a. Space should be provided as necessary to accommodate the functional program. PET scanning is generally used in experimental settings and requires space for a scanner and for a cyclotron.

b. Scanner room. The scanner room should be a minimum of 300 square feet (27.87 square meters).

c. Cyclotron room. Where a cyclotron room is required, it should be a minimum of 225 square feet (20.90 square meters) with a 16-square-foot (1.47 square meters) space safe for storage of parts that may need to cool down for a year or more.

#### Laboratory facilities

a. Both a hot (radioactive) lab and a cold (nonradioactive) lab may be required, each a minimum of 250 square feet (23.23 square meters).

b. A blood lab of a minimum of 80 square feet (7.43 square meters) should be provided.

#### Facility requirements

a. Patient holding area. A patient holding area to accommodate two stretchers should be provided.

of radionuclides, chemicals for preparation, dose calibrators, and record-keeping.

- (2) If pre-prepared materials are used, storage and calculation area may be considerably smaller than that for on-site preparation.

- (3) Space shall provide adequately for dose calibration, quality assurance, and record-keeping.

5.6.2.2 Radiation protection requirements. The area may still require shielding from other portions of the facilities.

#### 5.6.2.3 Construction requirements

- (1) Floors and walls shall be constructed of easily decontaminated materials.

- (2) Vents and traps for radioactive gases shall be provided if such are used.

b. Gas storage area. A gas storage area large enough to accommodate bottles of gas should be provided. Each gas will be piped individually and may go to the cyclotron or to the lab.

#### Construction requirements

Radiation protection. Significant radiation protection may be required, since the cyclotron may generate high radiation.

#### Ventilation requirements

a. Ventilation adequate for the occupancy is required. Compressed air may be required to pressurize a water circulation system.

b. Special ventilation systems together with monitors, sensors, and alarm systems may be required to vent gases and chemicals.

c. The heating, ventilating, and air conditioning system will require particular attention; highest pressures should be in coldest (radiation) areas and exhaust should be in hottest (radiation) areas. Redundancy may be important.

#### Plumbing requirements

The cyclotron is water cooled with de-ionized water. A heat exchanger and connection to a compressor or connection to chilled water may be required. A redundant plumbing system connected to a holding tank may be required to prevent accidental leakage of contaminated water into the regular plumbing system.

- (3) Hoods for pharmaceutical preparation shall meet applicable standards.

**\*5.6.3 Positron Emission Tomography (PET)**

**5.6.4 Nuclear Medicine Area**

The nuclear medicine area, when operated separately from the imaging department, shall include the following:

**5.6.4.1 Space requirements.** Space shall be adequate to permit entry of stretchers and beds and able to accommodate imaging equipment, electronic consoles, and if present, computer terminals.

**5.6.4.2 A control desk and reception area**

**5.6.4.3 Hand-washing stations.** These shall be provided within each procedure room.

**\*5.6.4.4 Dose administration area.** A dose administration area as specified by the functional program shall be provided, located near the preparation area. Since as much as several hours may elapse for a dose to take effect, the area shall provide for visual privacy from other areas.

**5.6.4.5 Support areas for the nuclear medicine area**

(1) Consultation area. A consultation area with view boxes illuminated to provide light of the same color value and intensity for appropriate comparison of several adjacent films shall be provided. Space shall be provided for computer access and display terminals if such are included in the program.

(2) Patient holding area

- (a) A holding area for patients on stretchers or beds shall be provided out of traffic and under control of staff.
- (b) Combination of this area with the dose administration area shall be permitted provided there is visual privacy between the areas.

(3) Offices

(a) Medical staff offices. Offices for physicians and assistants shall be provided and equipped for individual consultation, viewing, and charting of film.

(b) Other staff offices. Clerical offices and spaces shall be provided as necessary for the program to function.

**\* (4) Darkroom.** If film processing is used, an on-site darkroom shall be provided for film processing.

(5) Computer room. When the functional program requires a centralized computer area, it shall be a separate room with access terminals available within the imaging rooms.

(6) A soiled workroom or holding room

(a) Soiled workroom. It shall contain a hand-washing station and a clinical sink (or equivalent flushing-rim fixtures).

(b) Soiled holding room. If the room is used for temporary holding of soiled materials, omission of the clinical sink shall be permitted.

(7) Equipment and supply storage

(a) Film storage. Inactive film storage under departmental administrative control and properly secured to protect film against loss or damage shall be provided and can be off site.

(b) Clean linen storage. A storage area for clean linen with a hand-washing station.

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**A5.6.4.4** Because patients in this area may be held for long periods of time, the design of the area should incorporate such features as comfortable seating, varied lighting, an entertainment center, music headphones, and availability of reading materials.

**A5.6.4.5 (4)** The darkroom should contain protective storage facilities for unexposed film that guard the film against exposure or damage.

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- (8) Housekeeping rooms. Provisions for cleanup shall be located within the suite for convenient access and use. Cleanup facilities shall include service sink or floor receptacle as well as storage space for housekeeping equipment and supplies.

### 5.6.4.6 Support areas for staff

- (1) Staff toilet(s). These shall be provided convenient to the nuclear medicine laboratory.

### 5.6.4.7 Support areas for patients

- (1) Patient waiting areas. Waiting areas shall be provided out of traffic, under staff control, and with seating capacity in accordance with the functional program. If the department is routinely used for outpatients and inpatients at the same time, separate waiting areas shall be provided with screening or visual privacy between the waiting areas.
- (2) Patient dressing rooms
- (a) These shall be convenient to the waiting area and procedure rooms.
- (b) Each dressing room shall include a seat or bench, a mirror, and provisions for hanging patients' clothing and securing valuables.
- (3) Patient toilet rooms. Toilet rooms reserved for

nuclear medicine patients shall be provided convenient to waiting and procedure rooms.

### 5.6.5 Radiotherapy Suite

#### \*5.6.5.1 Space requirements

- (1) Rooms and spaces shall be provided as necessary to accommodate the functional program.
- \* (2) Simulator, accelerator, and cobalt rooms shall be sized to accommodate the equipment and patient access on a stretcher, medical staff access to the equipment and patient, and service access.

5.6.5.2 Radiation protection requirements. Cobalt, linear accelerators, and simulation rooms require radiation protection.

- (1) Layouts shall be designed to prevent the escape of radioactive particles.
- (2) Openings into the room, including doors, ductwork, vents, and electrical raceways and conduits, shall be baffled to prevent direct exposure to other areas of the facility.
- (3) A certified physicist representing the owner or appropriate state agency shall specify the type, location, and amount of protection to be installed in accordance with final approved department layout and equipment selection. The architect shall incorporate these specifications into the hospital building plans.

#### 5.6.5.3 Construction requirements

- (1) Flooring shall be adequate to meet load requirements for equipment, patients, and personnel.
- (2) Provision for wiring raceways, ducts, or conduit shall be made in floors and ceilings.
- (3) Ceiling-mounted equipment shall have properly designed rigid support structures located above the finished ceiling.

5.6.5.4 Support areas for the radiotherapy suite. The following areas shall be provided. Sharing of these areas

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**A5.6.5.1** Equipment manufacturers' recommendations should be sought and followed, since space requirements may vary from one machine to another and one manufacturer to another.

a. The radiotherapy suite may contain electron beam therapy or radiation therapy or both.

b. Although not recommended, a simulation room may be omitted in small linear accelerator facilities where other positioning geometry is provided.

**A5.6.5.1 (2)** Minimum size should be 260 square feet (24.15 square meters) for the simulator room; 680 square feet (63.17 square meters), including the maze, for accelerator rooms; and 450 square feet (41.81 square meters) for cobalt rooms.

between the radiotherapy suite and other areas shall be permitted if required by the functional program:

- (1) Exam rooms for each treatment room. These shall be as specified by the functional program.
  - (a) Each exam room shall be a minimum of 100 square feet (9.29 square meters).
  - (b) Each exam room shall be equipped with a hand-washing station.
- (2) A stretcher hold area
  - (a) This shall be located adjacent to the treatment rooms, screened for privacy, and combined with a seating area for outpatients.
  - (b) The size of the area will be dependent on the program for outpatients and inpatients.
- (3) Patient gowning area
  - (a) Safe storage for valuables and clothing shall be provided.
  - (b) At least one space should be large enough for staff-assisted dressing.
- (4) Business office and/or reception/control area
- (5) Darkroom. This shall be convenient to the treatment room(s) and the quality control area.
  - (a) Where daylight processing is used, the darkroom may be minimal for emergency use.
  - (b) If automatic film processors are used, a receptacle of adequate size with hot and cold water for cleaning the processor racks shall be provided either in the darkroom or nearby.
- (6) Film file area
- (7) Film storage area for unprocessed film.
- (8) Housekeeping room. This shall be equipped with service sink or floor receptor and large enough for equipment or supplies storage.

5.6.5.5 Optional support areas for the radiotherapy suite. The following areas may be required by the functional program:

- (1) Offices
  - (a) Oncologist's office (may be combined with consultation room)
  - (b) Physicist's office (may be combined with treatment planning)
- (2) Treatment planning and record room
- (3) Consultation room
- (4) Quality control area. This shall have view boxes illuminated to provide light of consistent color value and intensity.
- (5) Computer control area. This is normally located just outside the entry to the treatment room(s).
- (6) Dosimetry equipment area
- (7) Hypothermia room (may be combined with an exam room)
- (8) Workstation/nutrition station

5.6.5.6 Additional support areas for linear accelerator

- (1) Mold room with exhaust hood and hand-washing station
- (2) Block room with storage. The block room may be combined with the mold room.

5.6.5.7 Additional support areas for cobalt room

- (1) Hot lab

## 5.7 Rehabilitation Therapy Department

### 5.7.1 General

Rehabilitation therapy is primarily for restoration of body functions and may contain one or several categories of services.

## 2.1 GENERAL HOSPITALS

5.7.1.1 If a formal rehabilitation therapy service is included in a project, the facilities and equipment shall be as necessary to accommodate the functional program.

5.7.1.2 Where two or more rehabilitation services are included, facilities and equipment may be shared as appropriate.

### 5.7.2 Physical Therapy

If physical therapy is part of the service, at least the following shall be provided:

5.7.2.1 Individual treatment area(s) with privacy screens or curtains. Each such space shall have not less than 70 square feet (6.51 square meters) of clear floor area.

5.7.2.2 Exercise area and facilities

5.7.2.3 Provision for additional therapies. If required by the functional program, provisions for thermotherapy, diathermy, ultrasonics, and hydrotherapy shall be made.

5.7.2.4 Hand-washing stations

- (1) Hand-washing stations for staff shall be located either within or at each treatment space.
- (2) Each treatment room shall have at least one hand-washing station.

5.7.2.5 Support areas for physical therapy

- (1) Soiled material storage. Separate storage for soiled linen, towels, and supplies shall be provided.
- (2) Equipment and supply storage
  - (a) Clean linen and towel storage
  - (b) Storage for equipment and supplies

5.7.2.6 Support areas for patients. If required by the functional program, patient dressing areas, showers, and lockers shall be provided. They shall be accessible and usable by the disabled.

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A5.7.3.2 The facilities should be similar to a residential environment.

### 5.7.3 Occupational Therapy

If occupational therapy is part of the service, at least the following shall be provided:

5.7.3.1 Work areas and counters. These shall be suitable for wheelchair access.

\*5.7.3.2 Teaching area. An area for teaching daily living activities shall be provided. It shall contain an area for a bed, kitchen counter with appliances and sink, a bathroom, and a table and chair.

5.7.3.3 Hand-washing stations

5.7.3.4 Equipment and supply storage

5.7.4 Prosthetics and Orthotics

If prosthetics and orthotics are part of the service, at least the following shall be provided:

5.7.4.1 Workspace for technicians

5.7.4.2 Space for evaluation and fitting. This shall have provision for privacy.

5.7.4.3 Space for equipment, supplies, and storage

5.7.5 Speech and Hearing Services

If speech and hearing services are offered, at least the following shall be provided:

5.7.5.1 Space for evaluation and treatment

5.7.5.2 Space for equipment and storage

5.7.6 Support Areas for the Rehabilitation Therapy Department

Each rehabilitation therapy department shall include the following, which may be shared or provided as separate units for each service:

5.7.6.1 Reception and control station(s). This shall permit visual control of waiting and activities areas and may be combined with office and clerical space.

5.7.6.2 Office and clerical space. Provision shall be made for filing and retrieval of patient records.

5.7.6.3 Multipurpose room. Access to a demonstration/conference room shall be provided.

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**5.7.6.4 Wheelchair and stretcher storage.** Space(s) shall be provided for storing wheelchairs and stretchers out of traffic while patients are using the services. These spaces may be separate from the service area but must be conveniently located.

**5.7.6.5 Housekeeping room.** A conveniently accessible housekeeping room and service sink for housekeeping use shall be provided.

#### **5.7.7 Support Areas for Staff**

Each rehabilitation therapy department shall include the following, which may be shared or provided as separate units for each service:

**5.7.7.1 Convenient access to toilets**

**5.7.7.2 Locking closets or cabinets** shall be provided within the vicinity of each work area for securing staff personal effects.

#### **5.7.8 Support Areas for Patients**

Each rehabilitation therapy department shall include the following, which may be shared or provided as separate units for each service:

**5.7.8.1 Patient waiting area(s).** These shall be located out of traffic with provision for wheelchairs.

**5.7.8.2 Patient toilets with hand-washing stations** accessible to wheelchair patients.

### **5.8 Respiratory Therapy Service**

The type and extent of respiratory therapy service in different institutions vary greatly. In some, therapy is delivered in large sophisticated units, centralized in a specific area; in others, basic services are provided only at patients' bedsides. If respiratory service is provided, the following elements shall be provided as a minimum, in addition to those elements stipulated in Sections 2.1-5.7.6.1 and 5.7.6.2 and 2.1-5.7.7.1 and 5.7.7.2:

#### **5.8.1 Locations for Cough-Inducing and Aerosol-Generating Procedures**

**5.8.1.1** All cough-inducing procedures performed on patients who may have infectious *Mycobacterium tuberculosis* shall be performed in rooms using local exhaust ventilation devices (e.g., booths or special

enclosures that have discharge HEPA filters and exhaust directly to the outside).

**5.8.1.2** If a ventilated booth is used, the air exchange rate within the booth shall be at least 12 air changes per hour, with a minimum exhaust flow rate of 50 cfm and differential pressure of 0.01" w.c. (2.5 Pa).

**5.8.1.3** These procedures may also be performed in a room that meets the ventilation requirements for airborne infection control. See Table 2.1-2 for airborne infection isolation room ventilation requirements.

#### **5.8.2 Outpatient Testing and Demonstration**

If respiratory services such as testing and demonstration for outpatients are part of the program, additional facilities and equipment shall be provided as necessary for the appropriate function of the service, including but not limited to the following:

**5.8.2.1** A reception and control station

**5.8.2.2** Room(s) for patient education and demonstration

**5.8.2.3** Patient waiting area with provision for wheelchairs

**5.8.2.4** Patient toilets and hand-washing stations

#### **5.8.3 Space and Utilities for Cleaning and Disinfecting Equipment**

**5.8.3.1** The space for receiving and cleaning soiled materials shall be physically separated from the space for storage of clean equipment and supplies.

**5.8.3.2** Appropriate local exhaust ventilation shall be provided if glutaraldehyde or other noxious disinfectants are used in the cleaning process.

**5.8.4** Storage for Equipment and Supplies

### **5.9 Renal Dialysis Unit (Acute and Chronic)**

#### **5.9.1 General**

**5.9.1.1** Functional program. Equipment and space shall be provided as necessary to meet the functional program, which may include treatment for acute (inpatient) and chronic cases, home treatment, and kidney dialyzer reuse facilities.

## 2.1 GENERAL HOSPITALS

### 5.9.1.2 Location

- (1) The location shall offer convenient access for outpatients. Accessibility to the unit from parking and public transportation shall be a consideration.
- (2) Inpatient services are permitted in critical care units and designated areas in the hospital with appropriate utilities.

### 5.9.2 Treatment Area

5.9.2.1 Layout. The treatment area shall be permitted to be an open area and shall be separate from administrative and waiting areas.

### 5.9.2.2 Space requirements

- (1) Area. Individual patient treatment areas shall contain at least 80 square feet (7.43 square meters), exclusive of general circulation space within the ward.
- (2) Clearance. There shall be at least a 4-foot (1.22 meters) space between beds and/or lounge chairs.

5.9.2.3 Privacy. The open unit shall be designed to provide privacy for each patient.

5.9.2.4 Nurse station(s). These shall be located within the dialysis treatment area and designed to provide visual observation of all patient stations.

### 5.9.2.5 Hand-washing stations

- (1) Hand-washing stations shall be convenient to the nurse station and patient treatment areas.
- (2) There shall be at least one hand-washing station serving no more than four stations.
- (3) The hand-washing stations shall be uniformly distributed to provide equal access from each patient station.

5.9.2.6 Patient toilet. A patient toilet with hand-washing stations shall be provided.

### 5.9.2.7 Stat laboratory

- (1) If a stat laboratory for blood and urinalysis is provided, the stat laboratory shall contain a hand-washing station, work counters, storage spaces, an undercounter refrigerator for specimens, and a cup sink.
- (2) An area for the phlebotomists' use shall be provided adjacent to the laboratory.
- (3) A pass-through for specimens shall be provided between the patient toilet room and the laboratory.

5.9.2.8 Private treatment area. If home training is provided in the unit, a private treatment area shall be provided.

- (1) A private treatment area of at least 120 square feet (11.15 square meters) shall be provided for patients who are being trained to use dialysis equipment at home.
- (2) This room shall contain a counter, hand-washing stations, and a separate drain for fluid disposal.

5.9.2.9 Airborne infection isolation room(s). The number of and need for required airborne infection isolation rooms shall be determined by an ICRA. When required, the airborne infection isolation room(s) shall comply with the requirements of Section 2.1-3.2.2.

### 5.9.3 Examination Room

An examination room with hand-washing stations and writing surface shall be provided with at least 100 square feet (9.29 square meters).

### 5.9.4 Support Areas for the Renal Dialysis Unit

5.9.4.1 Administrative space. Office and clinical work-space shall be available for administrative services.

5.9.4.2 Medication dispensing station. If required by the functional program, there shall be a medication dispensing station for the dialysis center.

- (1) A work counter and hand-washing stations shall be included in this area.
- (2) Provisions shall be made for the controlled storage, preparation, distribution, and refrigeration of medications.

**5.9.4.3 Nourishment station.** If a nourishment station for the dialysis service is provided, it shall contain a hand-washing station, a work counter, a refrigerator, storage cabinets, a water-dispensing unit separate from the hand-washing station, and equipment for serving nourishments as required. The nourishment station shall be located away from the treatment area to prevent the risk of cross-contamination.

**5.9.4.4 Dialyzer reprocessing room.** If dialyzers are reused, a reprocessing room sized to perform the functions required shall be provided.

- (1) This room shall include a one-way flow of materials from soiled to clean.
- (2) This room shall include provisions for refrigeration for temporary storage of dialyzers, decontamination/cleaning areas, sinks, processors, computer processors and label printers, a packaging area, and dialyzer storage cabinets.

**5.9.4.5 Mixing room and delivery system.** Each facility using a central batch delivery system shall provide, either on the premises or through written arrangements, individual delivery systems for the treatment of any patient requiring special dialysis solutions. The mixing room shall include a sink, storage space, and holding tanks.

**5.9.4.6 Water treatment equipment room.** The water treatment equipment shall be located in an enclosed room.

**5.9.4.7 Equipment repair room.** If required by the functional program, an equipment repair and breakdown room shall be equipped with a hand-washing station, deep service sink, work counter, and storage cabinet.

**5.9.4.8 Clean workroom or supply room.** A clean workroom shall be provided. Soiled and clean workrooms or holding rooms shall be separated and have no direct connection.

- (1) Clean workroom. If the room is used for preparing patient care items, it shall contain a work counter, a hand-washing station, and storage facilities for clean and sterile supplies.
- (2) Clean supply room. If the room is used only for storage and holding as part of a system for distri-

bution of clean and sterile materials, the work counter and hand-washing station may be omitted.

**5.9.4.9 Soiled workroom.** A soiled workroom shall be provided and contain a flushing-rim sink, hand-washing station, work counter, storage cabinets, waste receptacles, and a soiled linen receptacle.

**5.9.4.10 Equipment and supply storage**

- (1) Clean linen storage. A clean linen storage area shall be provided. It may be within the clean workroom, a separate closet, or an approved distribution system. If a closed cart system is used, storage may be in an alcove. It must be out of the path of normal traffic and under staff control.
- (2) Supply areas/carts. Supply areas or supply carts shall be provided.
- (3) Stretcher/wheelchair storage. If stretchers are provided, storage space shall be available for wheelchairs and stretchers, out of direct line of traffic.

**5.9.4.11 Environmental services closet.** An environmental services closet shall be provided adjacent to and for the exclusive use of the unit.

- (1) The closet shall contain a floor receptor or service sink and storage space for housekeeping supplies and equipment.
- (2) Water supply and drain connection for testing machines shall be provided.

**5.9.5 Support Areas for Staff**

Appropriate staff clothing change areas and lounge shall be available for male and female personnel. The areas shall contain lockers, shower, toilet, and hand-washing stations.

**5.9.6 Support Areas for Patients**

**5.9.6.1 Patient support provisions.** A waiting room, toilet room with hand-washing stations, source of drinking water, public telephone, and seating accommodations for waiting periods shall be available or accessible to the dialysis unit.

**5.9.6.2 Patient storage.** Storage for patients' belongings shall be provided.

## 2.1 GENERAL HOSPITALS

### 5.9.7 Diagnostic Areas

5.9.7.1 Laboratory space. If required by the functional program, a laboratory space, including counters, sinks, cabinets, label machines, computers, and hand-washing sinks, shall be provided to accommodate processing of blood draws and urine samples.

### 5.9.8 Construction Requirements

\*5.9.8.1 Piping. Design consideration shall be given to the disposal of liquid waste from the dialyzing process to prevent odor and backflow.

\*5.9.8.2 Temperature/humidity control

### \*5.10 Hyperbaric Suite

## APPENDIX

A5.9.8.1 All installed reverse osmosis water and dialysis solution piping should be accessible.

A5.9.8.2 Due to the nature of the dialyzing process and the nature of the patient's illness, the temperature should be maintained at 72° to 78°F (22° to 26°C) with a relative humidity level of 30 to 60 percent.

### A5.10 Hyperbaric Suite

#### Applicability

These guidelines should apply to hyperbaric facilities designated for clinical hyperbaric oxygen therapy, including hospital-affiliated and freestanding facilities.

#### General Facility Requirements

Hyperbaric chambers should be constructed in conformance with applicable construction codes (ASME PVHO-1, Safety Standard for Pressure Vessels for Human Occupancy) and carry a "U" stamp.

The facility should be constructed to comply with applicable local, state, and national construction codes governing the type of occupancy (health care, commercial, other) housing the hyperbaric chamber(s).

When a hyperbaric suite/clinic is provided, it should meet the requirements of Chapter 20, NFPA 99, and Chapter 12, NFPA 101.

#### Multiplace (NFPA Class "A" Chamber) Facilities

##### Emergency exit requirements

- The facility housing a Class A chamber should be designed to allow rapid or emergency removal of patients and staff.
- In the case of multiple Class A chambers installed in a single setting or a Class A chamber that contains multiple compartments, the rapid or emergency removal of a patient or personnel from one chamber/compartment should not restrict in any way the rapid and simultaneous removal of patients or personnel from all other chambers or compartments.
- A minimum of two exits should be provided for the chamber room unless a single exit opens directly to a primary evacuation hallway.

#### Space requirements

The space required to house Class A chambers and supporting equipment should be defined by NFPA 99, Chapter 20 and the equipment manufacturer, but in any case should not be less than the following:

- Minimum clearances around a (Class A) hyperbaric chamber should be as follows:
- Chamber entry should be designed for gurney/stretchers access: 10 feet (3.04 meters).
- Entries designed for wheeled gurneys should be provided with access ramps that are flush with the chamber entry doorway.
- Chambers that utilize fixed internal stretcher frames and transfer gurneys should be designed to allow immediate removal of the patient upon chamber depressurization.
- Chamber man lock entries or compartments utilizing circular entry hatchways: 4 feet (1.21 meters).
- The chamber should have a minimum of 4 feet (1.21 meters) of clearance all the way around the chamber, except as specified with regard to entry areas.
- If the chamber control console is immediately adjacent to the chamber, a minimum passageway of 4 feet (1.21 meters) should be provided between the control console and any obstruction.

#### Monoplace (Class B) Facilities

##### Emergency exit requirements

- In the case of multiple Class B chambers installed in a single setting, the rapid or emergency removal of a patient from one chamber should not restrict in any way the rapid and simultaneous removal of patients from all other chambers.
- A minimum of two exits should be provided for the chamber room unless a single exit opens directly to a primary evacuation hallway.
- Exit doorways should have a minimum opening of 46 inches (1.16 meters)

## 2.1 GENERAL HOSPITALS

### 5.11 Laboratory Suite

#### 5.11.1 General

5.11.1.1 Type. Laboratory facilities shall be provided for the performance of tests in hematology, clinical chemistry, urinalysis, microbiology, anatomic pathology, cytology, and blood banking to meet the workload described in the functional program.

5.11.1.2 Location. Certain procedures may be performed on-site or provided through a contractual arrangement with a laboratory service acceptable to the authority having local jurisdiction.

- (1) Provisions shall be made for the following procedures to be performed on-site: blood counts, urinalysis, blood glucose, electrolytes, blood urea and nitrogen (BUN), coagulation, transfusions (type and cross-match capability), and stat gram stains.
- (2) Provisions shall be included for specimen collection and processing.

5.11.1.3 Equipment requirements. The functional program shall describe the type and location of all special equipment that is to be wired, plumbed, or plugged in, and the utilities required to operate each.

**Note:** Refer to NFPA code requirements applicable to hospital laboratories, including standards clarifying that hospital units do not necessarily have the same fire safety requirements as commercial chemical laboratories.

#### 5.11.2 Facility Requirements

The following physical facilities shall be provided within the hospital:

##### 5.11.2.1 Work areas

- (1) Laboratory work counter(s) with space for microscopes, appropriate chemical analyzer(s), incubator(s), centrifuge(s), biosafety hoods, etc. shall be provided.

## APPENDIX

**A5.11.2.4 (3).** For example, separate facilities should be provided for such incompatible materials as acids and bases, and vented storage should be provided for volatile solvents.

- (2) Work areas shall include sinks with water and access to vacuum, gases, and air, and electrical services as needed.

5.11.2.2 Hand-washing stations. These shall be located within 25 feet (7.62 meters) of each workstation and within each room with a workstation.

##### 5.11.2.3 Design considerations

- (1) Chemical safety provisions. These shall include emergency shower, eye-flushing devices, and appropriate storage for flammable liquids, etc.
- (2) Terminal sterilization provisions. Facilities and equipment shall be provided for terminal sterilization of contaminated specimens before transport (autoclave or electric oven). (Terminal sterilization is not required for specimens that are incinerated on-site.)
- (3) Radioactive material-handling provisions. If radioactive materials are employed, facilities for long-term storage and disposal of these materials shall be provided. No special provisions shall normally be required for body waste products from most patients receiving low-level isotope diagnostic material. Requirements of authorities having jurisdiction shall be verified.

##### 5.11.2.4 Support areas for the laboratory suite

- (1) Administrative areas. These shall include offices as well as space for clerical work, filing, and record maintenance.
- (2) Refrigerated blood storage facilities. A refrigerator to store blood for transfusions shall be equipped with temperature-monitoring and alarm signals.
- \* (3) Storage facilities for reagents, standards, supplies, and stained specimen microscope slides, etc. These shall include refrigeration. Such facilities shall conform to applicable NFPA standards.
- (4) A specimen collection facility. This facility may be located outside the laboratory suite.

- (a) The blood collection area shall have a work counter, space for patient seating, and hand-washing stations.
- (b) The urine and feces collection facility shall be equipped with a water closet and hand-washing station.

5.11.2.5 Support areas for staff. Lounge, locker, and toilet facilities shall be conveniently located for male and female laboratory staff. Location of these areas outside the laboratory area and sharing of these areas with other departments shall be permitted.

## 5.12 Morgue

### 5.12.1 Location

These facilities shall be accessible through an exterior entrance and shall be located to avoid the need for transporting bodies through public areas.

### \*5.12.2 Autopsy Facilities

If autopsies are performed in the hospital, the following elements shall be provided:

5.12.2.1 Refrigerated facilities for body holding. Body-holding refrigerators shall be equipped with temperature-monitoring and alarm signals.

5.12.2.2 An autopsy room. This shall contain the following:

- (1) A work counter with a hand-washing station
- (2) A storage space for supplies, equipment, and specimens
- (3) An autopsy table
- (4) A deep sink for washing specimens

5.12.2.3 Housekeeping facilities. A housekeeping service sink or receptor shall be provided for cleanup and housekeeping.

### 5.12.3 Body-Holding Room

If autopsies are performed outside the facility, a well-ventilated, temperature-controlled body-holding room shall be provided.

## 6 Service Areas

### 6.1 Pharmacy

#### 6.1.1 General

6.1.1.1 Functional program. The size and type of services to be provided in the pharmacy will depend upon the type of drug distribution system used, number of patients to be served, and extent of shared or purchased services. These factors shall be described in the functional program.

6.1.1.2 Location. The pharmacy room or suite shall be located for convenient access, staff control, and security.

#### 6.1.1.3 Facility requirements

- (1) Facilities and equipment shall be as necessary to accommodate the functional program. (Satellite facilities, if provided, shall include those items required by the program.)
- (2) As a minimum, the following elements shall be provided:

#### 6.1.2 Dispensing Facilities

6.1.2.1 A room or area for receiving, breakout, and inventory control of materials used in the pharmacy

6.1.2.2 Work counters and space for automated and manual dispensing activities

\*6.1.2.3 An extemporaneous compounding area. This shall include a sink and sufficient counter space for drug preparation.

6.1.2.4 An area for reviewing and recording

6.1.2.5 An area for temporary storage, exchange, and restocking of carts

## APPENDIX

A5.12.2 Autopsy rooms should be equipped with downdraft local exhaust ventilation.

A6.1.2.3 Floor drainage may also be required, depending on the extent of compounding conducted.

## 2.1 GENERAL HOSPITALS

6.1.2.6 Security provisions for drugs and personnel in the dispensing counter area, if one is provided

### 6.1.3 Manufacturing Facilities

6.1.3.1 A bulk compounding area

6.1.3.2 Provisions for packaging and labeling

6.1.3.3 A quality-control area

### 6.1.4 Storage

Cabinets, shelves, and/or separate rooms or closets shall be provided.

6.1.4.1 Bulk storage

6.1.4.2 Active storage

6.1.4.3 Refrigerated storage

6.1.4.4 Storage for volatile fluids and alcohol. This shall be constructed according to applicable fire safety codes for the substances involved.

6.1.4.5 Storage for narcotics and controlled drugs. Secure storage shall be provided for narcotics and controlled drugs

6.1.4.6 Equipment and supply storage. Storage shall be provided for general supplies and equipment not in use.

### 6.1.5 Support Areas for the Pharmacy

6.1.5.1 Patient information. Provision shall be made for cross-checking medication and drug profiles of individual patients.

6.1.5.2 Pharmacological information. Poison control, reaction data, and drug information centers

6.1.5.3 Office. A separate room or area shall be provided for office functions. This room shall include space to accommodate a desk, filing capabilities, communication equipment, and reference materials.

## APPENDIX

A6.2.1.1 Consideration may also be required for meals to VIP suites and for cafeterias for staff, ambulatory patients, and visitors, as well as providing for nourishments and snacks between scheduled meal service.

6.1.5.4 Provisions for patient counseling and instruction. A room separate from the pharmacy shall be permitted to meet this requirement.

6.1.5.5 A room for education and training. A multi-purpose room shared with other departments shall be permitted to serve this purpose.

6.1.5.6 Outpatient consultation/education area. If the functional program requires dispensing of medication to outpatients, an area for consultation and patient education shall be provided.

6.1.5.7 Hand-washing stations. Hand-washing stations shall be provided within each separate room where open medication is prepared for administration.

6.1.5.8 Sterile work area. If intravenous (IV) solutions are prepared in the pharmacy, a sterile work area with a laminar-flow workstation designed for product protection shall be provided. The laminar-flow workstation shall include a nonhydroscopic filter rated at 99.97 percent (HEPA), as tested by dioctyl-phthalate (DOP) tests, and have a visible pressure gauge for detection of filter leaks or defects.

6.1.5.9 Additional equipment and supply storage. If unit dose procedure is used, additional space and equipment for supplies, packaging, labeling, and storage, as well as for the carts.

### 6.1.6 Support Areas for Staff

6.1.6.1 Staff toilet. Convenient access to toilet shall be provided.

6.1.6.2 Staff storage. Convenient access to locker shall be provided.

## 6.2 Dietary Facilities

### 6.2.1 General

\*6.2.1.1 Applicability. Food service facilities shall provide food service for staff, visitors, inpatients, and outpatients in accordance with the functional program.

6.2.1.2 Location. Patient food preparation areas shall be located adjacent to delivery, interior transportation, and storage facilities.

6.2.1.3 Standards. Food service facilities and equipment shall conform to these standards and to the standards of the National Sanitation Foundation and other applicable codes.

6.2.1.4 Construction requirements. Finishes in the dietary facility shall be selected to ensure cleanability and the maintenance of sanitary conditions.

#### 6.2.2 Functional Elements

If on-site conventional food service preparation is used, the following shall be provided, in size and number appropriate for the functional program:

6.2.2.1 Receiving/control stations. An area for receiving and control of incoming dietary supplies shall be provided.

- (1) This area shall be separated from the general receiving area
- (2) It shall contain a control station and a breakout area for loading, uncrating, and weighing supplies.

6.2.2.2 Hand-washing stations. Hands-free operable hand-washing stations shall be conveniently accessible at locations throughout the unit.

#### 6.2.2.3 Food preparation work spaces

- (1) Work spaces shall be provided for food preparation, cooking, and baking. These areas shall be as close as possible to the user (i.e., tray assembly and dining).
- (2) Additional spaces shall be provided for thawing and portioning.

6.2.2.4 Assembly and distribution. A patient tray assembly area shall be close to the food preparation and distribution areas.

#### 6.2.2.5 Food service carts

- (1) A cart distribution system shall be provided, with spaces for storage, loading, distribution, receiving, and sanitizing of the food service carts.

- (2) The cart traffic shall be designed to eliminate any danger of cross-circulation between outgoing food carts and incoming, soiled carts, and the cleaning and sanitizing process. Cart circulation shall not be through food processing areas.

6.2.2.6 Dining area. Dining space(s) shall be provided for ambulatory patients, staff, and visitors. These spaces shall be separate from the food preparation and distribution areas.

6.2.2.7 Area for receiving, scraping, and sorting soiled tableware. This shall be adjacent to ware-washing and separate from food preparation areas.

#### 6.2.2.8 Ware-washing facilities

- (1) These shall be designed to prevent contamination of clean wares with soiled wares through cross-traffic.
- (2) The clean wares shall be transferred for storage or use in the dining area without having to pass through food preparation areas.

#### 6.2.2.9 Pot-washing facilities

- (1) These shall include multi-compartmented sinks of adequate size for the intended use, convenient to the using service.
- (2) Supplemental heat for hot water to clean pots and pans shall be by booster heater, steam jet, or other appropriate means.
- (3) Mobile carts or other provisions shall be made for drying and storing pots and pans.

6.2.2.10 Facilities for commissary or contract services from other areas

- (1) Provision shall be made to protect food delivered to ensure freshness, retain hot and cold, and avoid contamination. If delivery is from outside sources, protection against weather shall be provided.
- (2) Provision shall be made for thorough cleaning and sanitizing of equipment to avoid mixing soiled and clean equipment.

## 2.1 GENERAL HOSPITALS

6.2.2.11 Vending services. If vending devices are used for unscheduled meals, a separate room shall be provided that can be accessed without having to enter the main dining area.

- (1) The vending room shall contain coin-operated machines, bill changers, a hand-washing station, and a sitting area.
- (2) Facilities for servicing and sanitizing the machines shall be provided as part of the facility's food service program.

### 6.2.3 Support Areas for Dietary Facilities

6.2.3.1 Office spaces. Offices for the use of the food service manager shall be provided. In smaller facilities, this space may be located in an area that is part of the food preparation area.

#### 6.2.3.2 Equipment

- (1) Mechanical devices shall be heavy-duty, suitable for use intended, and easily cleaned.
- (2) Where equipment is movable, heavy-duty locking casters shall be provided. If equipment is to have fixed utility connections, the equipment shall not be equipped with casters.
- (3) Walk-in coolers, refrigerators, and freezers shall be insulated at floor as well as at walls and top.
- (4) Coolers, refrigerators, and freezers shall be thermostatically controlled to maintain desired temperature settings in increments of 2 degrees or less.
  - (a) Coolers and refrigerators shall be capable of maintaining a temperature down to freezing.
  - (b) Freezers shall be capable of maintaining a temperature of 20 degrees below 0° F.
  - (c) Interior temperatures shall be indicated digitally so as to be visible from the exterior. Controls shall include audible and visible high and low temperature alarm. Time of alarm shall be automatically recorded.
- (5) Walk-in units
  - (a) These may be lockable from outside but must have release mechanism for exit from inside at all times.
  - (b) Interior shall be lighted.
  - (c) All shelving shall be corrosion resistant, easily cleaned, and constructed and anchored to support a loading of at least 100 pounds per linear foot.
- (6) Cooking equipment. All cooking equipment shall be equipped with automatic shutoff devices to prevent excessive heat buildup.
- (7) Ice-making equipment
  - (a) This equipment shall be convenient for service and easily cleaned.
  - (b) It shall be provided for both drinks and food products (self-dispensing equipment) and for general use (storage-bin type equipment).
- (8) Construction requirements. Under-counter conduits, piping, and drains shall be arranged to not interfere with cleaning of the equipment or of the floor below.

#### 6.2.3.3 Equipment and supply storage

- (1) General. Storage spaces shall be convenient to the receiving area and accessible without traveling through the food preparation area.
- (2) Food storage
  - (a) Storage spaces for bulk, refrigerated, and frozen foods shall be provided. Provision shall be made for storage of a minimum of four days' supplies.
  - (b) Food storage components shall be grouped for convenient access to the receiving and food preparation areas.
  - (c) All food shall be stored clear of the floor. Lowest shelf shall be not less than 12 inches (30.48 centimeters) above the floor or shall

be closed in and sealed tight for ease of cleaning.

- (3) Additional storage rooms. These shall be provided as necessary for the storage of cooking wares, extra trays, flatware, plastic and paper products, and portable equipment.
- (4) Cleaning supplies storage. A separate storage room shall be provided for the storage of nonfood items such as cleaning supplies that might contaminate edibles.

#### 6.2.3.4 Housekeeping rooms

- (1) These shall be provided for the exclusive use of the dietary department and shall contain a floor sink and space for mops, pails, and supplies.
- (2) Where hot water or steam is used for general cleaning, additional space within the room shall be provided for the storage of hoses and nozzles.

#### 6.2.4 Support Areas for Staff

6.2.4.1 Toilets, lockers, and lounges. Toilets, lockers and lounge facilities shall be convenient to the dietary department. These facilities shall be permitted to be shared with adjacent services provided they are adequately sized.

### 6.3 Central Services

The following shall be provided:

#### 6.3.1 Soiled and Clean Work Areas

The soiled and clean work areas shall be physically separated.

##### 6.3.1.1 Soiled workroom

- (1) This room shall be physically separated from all other areas of the department.
- (2) Work space shall be provided to handle the cleaning and initial sterilization/disinfection of all medical/surgical instruments and equipment. Work tables, sinks, flush-type devices, and washer/sterilizer decontaminators shall be provided.
- (3) Pass-through doors and washer/sterilizer deconta-

minators shall deliver into clean processing area/workrooms.

\*6.3.1.2 Clean assembly/workroom. This workroom shall contain hand-washing stations, work space, and equipment for terminal sterilizing of medical and surgical equipment and supplies.

#### 6.3.2 Equipment and Supply Storage Areas

##### 6.3.2.1 Clean/sterile medical/surgical supplies

- (1) A room for breakdown shall be provided for manufacturers' clean/sterile supplies. The clean processing area shall not be in this area but in an adjacent space.
- (2) Storage for packs, etc., shall include provisions for ventilation, humidity, and temperature control.

6.3.2.2 Storage room for patient care and distribution carts. This area shall be adjacent and easily available to clean and sterile storage and close to the main distribution point to keep traffic to a minimum and ease work flow.

#### 6.3.3 Support Areas for Staff

6.3.3.1 Administrative/changing room. If required by the functional program, this room shall be separate from all other areas and provide for staff to change from street clothes into work attire.

6.3.3.2 Staff accommodations. Lockers, hand-washing

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A6.3.1.2 Sterilization room. This room is used exclusively for the inspection, assembly, and packaging of medical/surgical supplies and equipment for sterilization.

- a. Access to the sterilization room should be restricted.
- b. This room should contain Hi-Vacuum or gravity steam sterilizers and sterilization equipment to accommodate heat-sensitive equipment (ETO sterilizer) and ETO aerators.
- c. It should contain worktables, counters, a hand-washing station, ultrasonic storage facilities for backup supplies and instrumentation, and a drying cabinet or equipment.
- d. The area should be spacious enough to hold sterilizer carts for loading of prepared supplies for sterilization.

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station, and showers shall be made available within the immediate vicinity of the department.

### 6.4 Linen Services

#### 6.4.1 General

Each facility shall have provisions for storing and processing of clean and soiled linen for appropriate patient care. Processing may be done within the facility, in a separate building on- or off-site, or in a commercial or shared laundry.

#### 6.4.2 Internal Linen Processing

Facilities and equipment shall be as required for cost-effective operation as described in the functional program. At a minimum, the following elements shall be provided:

**6.4.2.1 Soiled linen holding room.** A separate room shall be provided for receiving and holding soiled linen until ready for pickup or processing.

**6.4.2.2 Clean linen storage.** A central clean linen storage and issuing room(s) shall be provided in addition to the linen storage required at individual patient units.

**6.4.2.3 Cart storage area(s).** These shall be provided for separate parking of clean- and soiled-linen carts out of traffic.

**6.4.2.4 A clean linen inspection and mending room or area.** If not provided elsewhere, a clean linen inspection, delinting, folding, assembly, and packaging area shall be provided as part of the linen services.

(1) Mending shall be provided for in the linen services department.

(2) A space for tables, shelving, and storage shall be provided.

**6.4.2.5 Hand-washing stations.** These shall be provided in each area where unhagged, soiled linen is handled.

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**A6.4.4.3** This may require a capacity for processing a seven-day supply in a 40-hour week.

**6.4.3 Additional Areas for Outside Laundry Services**  
If linen is processed outside the building, provisions shall also be made for:

**6.4.3.1 Service entrance.** A service entrance, protected from inclement weather, shall be provided for loading and unloading of linen.

**6.4.3.2 Control station.** A control station shall be provided for pickup and receiving.

#### 6.4.4 On-Site Laundry Facility

If linen is processed in a laundry facility that is part of the project (within or as a separate building), the following shall be provided in addition to the requirements for internal processing facilities in Section 2.1-6.4.2.

**6.4.4.1 Layout.** Equipment shall be arranged to permit an orderly work flow and minimize cross-traffic that might mix clean and soiled operations.

**6.4.4.2 Control and distribution room.** A receiving, holding, and sorting room shall be provided for control and distribution of soiled linen. Discharge from soiled linen chutes shall be received in a separate room adjacent to it.

**\*6.4.4.3 Laundry processing room.** This shall have commercial or industrial-type equipment that can process at least a seven-day supply within the regular scheduled work week.

**6.4.4.4 Hand-washing stations.** Employee hand-washing stations shall be provided in each room where clean or soiled linen is processed and handled.

**6.4.4.5 Storage for laundry supplies**

**6.4.4.6 Staff support locations.** Conveniently accessible staff lockers, showers, and lounge shall be provided.

#### 6.4.5 Linen Chutes

If provided, these shall meet or exceed the following standards:

##### 6.4.5.1 Standards

(1) Service openings to chutes shall comply with NFPA 101.

- (2) Chutes shall meet the provisions described in NFPA 82.
- (3) Chute discharge into collection rooms shall comply with NFPA 101.

6.4.5.2 Dimensions. The minimum cross-sectional dimension of gravity chutes shall be 2 feet (60.96 centimeters).

### 6.5 Materials Management

#### 6.5.1 Receiving

The following shall be provided:

##### 6.5.1.1 Off-street unloading facilities

##### 6.5.1.2 Receiving area

Adequate receiving areas shall be provided to accommodate delivery trucks and other vehicles.

##### \* (1) Location

- (a) Dock areas shall be segregated from other occupied building areas and located so that noise and odors from operation will not adversely affect building occupants.
- (b) The receiving area shall be convenient to service elevators and other internal corridor systems.
- (c) Receiving areas shall be segregated from waste staging and other outgoing materials-handling functions.

##### (2) Space requirements

- (a) Adequate space shall be provided to enable breakdown, sorting, and staging of incoming materials and supplies.
- (b) Balers and other devices shall be located to capture packaging for recycling or return to manufacturer or deliverer.
- (c) In facilities with centralized warehousing, adequate space shall be provided at receiving points to permit the staging of reusable

transport containers for supplies moving from central warehouses to individual receiving sites.

#### 6.5.2 General Stores

In addition to supply facilities in individual departments, a central storage area shall be provided.

##### 6.5.2.1 General

General stores may be located in a separate building on site with provisions for protection against inclement weather during transfer of supplies. The following shall be provided:

##### 6.5.2.2 General storage room(s)

- (1) Location. Location of storage in separate, concentrated areas within the institution or in one or more individual buildings on site shall be permitted. Off-site location for a portion of this storage shall be permitted.
- (2) Space requirements. General storage room(s) with a total area of not less than 20 square feet (1.86 square meters) per inpatient bed shall be provided.

##### 6.5.2.3 Additional storage areas for outpatient facilities

- (1) Location. Location of additional storage areas in combination with and in addition to the general stores, or in a central area within the outpatient department, shall be permitted. Off-site location for a portion of this storage shall also be permitted.
- (2) Space requirements. Additional storage areas for outpatient facilities shall be provided in an amount not less than 5 percent of the total area of those facilities.

#### 6.5.3 Waste Management

\*6.5.3.1 Collection and storage. Waste collection and storage locations shall be determined by the facility as a component of the functional program.

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A6.5.1.2 (1) The receiving area should be located to promote the safe, secure, and efficient movement of arriving materials without compromising patient areas.

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### (1) Location

- (a) The location of compactors, balers, sharps, and recycling container staging at docks or other waste removal areas shall be stipulated by the functional program.
- (b) Red bag waste shall be staged in enclosed and secured areas. Biohazardous and environmentally hazardous materials, including mercury, nuclear reagent waste, and other regulated waste types, shall be segregated and secured.

### (2) Space requirements

- (a) The functional program shall stipulate the categories and volumes of waste for disposal and the methods of handling and disposal of waste.
- (b) The functional program shall outline the space requirements, including centralized waste collection and storage spaces. Size of spaces shall be based upon the volume of projected waste and length of anticipated storage.

### (3) Regulated waste storage spaces

- (a) If provided, regulated medical waste or infectious waste storage spaces shall have a floor

drain, cleanable floor and wall surfaces, lighting, and exhaust ventilation, and should be safe from weather, animals and unauthorized entry.

- (b) Refrigeration requirements for such storage facilities shall comply with state and/or local regulations.

6.5.3.2 Refuse chutes. If provided, these shall meet or exceed the following standards:

- (1) Chutes shall meet the provisions described in NFPA 82.
- (2) Service openings to chutes shall comply with NFPA 101.
- (3) Chute discharge into collection rooms shall comply with NFPA 101.
- (4) The minimum cross-sectional dimension of gravity chutes shall be 2 feet (60.96 centimeters).

Note: See Section 2.1-9.3 for text on waste processing.

## 6.6 Environmental Services

6.6.1 Facilities for Cleaning and Sanitizing Carts  
Facilities shall be provided to clean and sanitize carts

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**A6.5.3.1** Collection and storage. The underlying framework of waste management comprises waste minimization and segregation. Facilities should seek both to minimize all components of each waste stream and to separate different components of the total waste stream. At a minimum, the functional program should include consideration of regular trash, medical/infectious waste, hazardous waste, and low-level radioactive waste.

The program should address the development of effective collection, transport, pest control, and storage systems; waste management and contingency planning; protection of the health and safety of workers; and proper siting of all on-site waste treatment technologies.

Optimizing waste management has programmatic and space impacts throughout the facility at points where waste is generated, collected, and staged for disposal. For facilities or municipalities with recycling programs in place, particular consideration should

be given to sorting and staging areas. The following elements are examples that may be considered:

- a. Building should include adequate space to accommodate bins/carts for appropriate waste segregation such as recyclables, infectious waste, sharps, etc. Corridors and materials handling systems should be designed to achieve an efficient movement of waste from points of generation to storage or treatment while minimizing the risk to personnel.
- b. Dedicated storage and flow space and cleaning/sanitation facilities should facilitate reuse of items such as medical products, food service items, and the like to eliminate disposables and reduce waste.
- c. Space should be included for autoclaves, shredders, and other technologies for processing medical waste prior to removals to landfill. Secure storage should be provided for staging fluorescent lamps for recycling.

serving the central service department, dietary facilities, and linen services. These facilities shall be permitted to be centralized or departmentalized.

#### 6.6.2 Housekeeping Rooms

In addition to the housekeeping rooms required in certain departments, sufficient housekeeping rooms shall be provided throughout the facility to maintain a clean and sanitary environment.

6.6.2.1 Number. There shall not be fewer than one housekeeping room for each floor.

6.6.2.2 Facility requirements. Each shall contain a floor receptor or service sink and storage space for housekeeping equipment and supplies.

### 6.7 Engineering Services and Maintenance

#### 6.7.1 General

Sufficient space shall be included in all mechanical and electrical equipment rooms for proper maintenance of equipment. Provisions shall also be made for removal and replacement of equipment. The following shall be provided:

#### 6.7.2 Equipment Locations

Room(s) or separate building(s) shall be provided for boilers, mechanical, and electrical equipment, except:

6.7.2.1 Rooftop air conditioning and ventilation equipment installed in weatherproof housings

6.7.2.2 Standby generators where the engine and appropriate accessories (i.e., batteries) are properly heated and enclosed in a weatherproof housing

6.7.2.3 Cooling towers and heat rejection equipment

6.7.2.4 Electrical transformers and switchgear where required to serve the facility and where installed in a weatherproof housing

6.7.2.5 Medical gas parks and equipment

6.7.2.6 Air-cooled chillers where installed in a weatherproof housing

6.7.2.7 Trash compactors and incinerators

6.7.2.8 Site lighting, post indicator valves, and other equipment normally installed on the exterior of the building

#### 6.7.3 Engineer's Office

This shall have file space and provisions for protected storage of facility drawings, records, manuals, etc.

#### 6.7.4 General Maintenance Shop(s)

These shall be provided to accommodate repair and maintenance requirements.

#### 6.7.5 Medical Equipment Shop

A separate area or room shall be provided specifically for storage, repair, and testing of electronic and other medical equipment. The amount of space and type of utilities will vary with the type of equipment involved and types of outside contracts used, as specified in the functional program.

#### 6.7.6 Equipment and Supply Storage

##### 6.7.6.1 Supply storage

- (1) A storage room shall be provided for building maintenance supplies.
- (2) Storage for solvents and flammable liquids shall comply with applicable NFPA codes.

6.7.6.2 Outdoor equipment storage. Yard equipment and supply storage areas shall be provided. These shall be located so that equipment may be moved directly to the exterior without interference with other work.

## 7 Administrative and Public Areas

### 7.1 Public Areas

The following shall be provided:

#### 7.1.1 Entrance

This shall be at grade level, sheltered from inclement weather, and accessible to the disabled.

#### 7.1.2 Lobby

This shall include:

7.1.2.1 A counter or desk for reception and information

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7.1.2.2 Public waiting area(s)

7.1.2.3 Public toilet facilities

7.1.2.4 Public telephones

7.1.2.5 Provisions for drinking water

### 7.1.3 Public Waiting Areas

All public waiting areas serving more than 15 people shall include toilet room(s) equipped with hand-washing stations. These toilet rooms shall be located near the waiting areas and may serve more than one such area.

## 7.2 Administrative and Related Support Areas

The following shall be provided:

### 7.2.1 Admissions Area

If required by the functional program for initial admission of inpatients, the area shall include:

7.2.1.1 A separate waiting area for patients and accompanying persons

7.2.1.2 A work counter or desk for staff

7.2.1.3 Wheelchair storage. A storage area for wheelchairs shall be provided out of the path of normal traffic.

### 7.2.2 Interview Space(s)

These shall include provisions for private interviews relating to social service, credit, and admissions.

### 7.2.3 General or Individual Office(s)

These shall be provided for business transactions, medical and financial records, and administrative and professional staff.

### 7.2.4 Multipurpose Room(s)

These shall be provided for conferences, meetings, and health education purposes, and shall include provi-

sions for the use of visual aids. Several services shall be permitted to share one multipurpose room.

### 7.2.5 Medical Records

Rooms, areas, or offices for the following personnel and/or functions shall be provided:

7.2.5.1 Medical records administrator/technician

7.2.5.2 Review and dictation

7.2.5.3 Sorting, recording, or microfilming records

7.2.5.4 Record storage

### 7.2.6 Equipment and Supply Storage

Storage shall be provided for office equipment and supplies.

### 7.2.7 Support Areas for Employees and Volunteers

Lockers, lounges, toilets, etc. shall be provided for employees and volunteers. These shall be in addition to, and separate from, those required for medical staff and the public.

## 8 Construction Standards

### 8.1 Design and Construction, including Fire-Resistant Standards

#### 8.1.1 Building Codes

8.1.1.1 General. Every building and portion thereof shall be designed and constructed to sustain all live and dead loads, including seismic and other environmental forces, in accordance with accepted engineering practices and standards as prescribed by local jurisdiction or the International Building Code or NEPA 5000, Building Construction and Safety Code. (See Sections 1.1-1.3.2 through 1.1-1.3.4.)

8.1.1.2 Freestanding buildings. Separate freestanding buildings for the boiler plant, laundry, shops, general storage, or other nonpatient contact areas shall be built in accordance with applicable building codes for such occupancy.

#### 8.1.2 Construction Requirements

\*8.1.2.1 General. Construction shall comply with the applicable requirements of NFPA 101, the standards

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A8.1.2.1 NFPA 101 generally covers fire/safety requirements only, whereas the building codes also apply to structural elements. The fire/safety items of NFPA 101 would take precedence over other codes in case of conflict. Appropriate application of each would minimize problems.

contained herein, and the requirements of authorities having jurisdiction. If there are no applicable local codes, the International Building Code or NFPA 5000 shall be used (see Section 1.1-7).

**8.1.2.2 Fire prevention/protection measures.** Compartmentation, exits, fire alarms, automatic extinguishing systems, and other fire prevention and fire protection measures, including those within existing facilities, shall comply with NFPA 101, with the following stipulation. The Fire-Safety Evaluation System (FSES) is permitted, subject to AHJ approval, in new construction and renovation. (The FSES is intended as an evaluation tool for fire safety only.) See Section 1.1-7 for exceptions.

**Note:** For most projects it is essential that third-party reimbursement requirements also be followed. Verify where these may be in excess of standards in these Guidelines.

**8.1.2.3 Interior finishes.** Interior finishing materials shall comply with the flame-spread limitations and the smoke-production limitations indicated in NFPA 101. This requirement does not apply to minor quantities of wood or other trim (see NFPA 101) or to wall covering less than 4 mil thick applied over a noncombustible base.

**8.1.2.4 Insulation materials.** Building insulation materials, unless sealed on all sides and edges with noncombustible material, shall have a flame-spread rating of 25 or less and a smoke-developed rating of 150 or less when tested in accordance with NFPA 255.

**8.1.3 Provisions for Disasters**  
See also Section 1.1-5.

**8.1.3.1 General**

- (1) Unless specifically approved, hospitals shall not be built in areas subject to damage or inaccessibility due to natural floods.
- (2) Where facilities may be subject to wind or water hazards, provision shall be made to ensure continuous operation.

**8.1.3.2 Emergency communication system.** An emer-

gency-radio communication system shall be provided in each facility.

- (1) This system shall operate independently of the building's service and emergency power systems during emergencies.
- (2) The system shall have frequency capabilities to communicate with state emergency communication networks.
- (3) Additional communication capabilities are required of facilities containing a formal community emergency-trauma service or other specialty services (such as regional pediatric critical care units) that utilize staffed patient transport units.

**8.2 General Standards for Details and Finishes**

**8.2.1 General**

**8.2.1.1 New construction.** Details and finishes in new construction projects, including additions and alterations, shall comply with the following standards (see Section 1.1-3 concerning existing facilities where total compliance is structurally impractical).

**\*8.2.1.2 Renovation.** If approved by the authorities having jurisdiction, retained portions of existing facilities that are not required to be totally modernized due to financial or other hardships shall be permitted, as a minimum, to comply with applicable requirements of the Existing Health Care Occupancies Section of NFPA 101.

**8.2.2 Details**

**8.2.2.1 Corridor width**

- (1) In outpatient suites and in areas not commonly used for patient bed or stretcher transportation, reduction of corridor width to 5 feet (1.52 meters) shall be permitted.
- (2) Location of items such as drinking fountains, telephone booths, vending machines, and portable

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**AB.2.1.2** A plan of correction for these portions of existing facilities should be developed and implemented.

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equipment shall not restrict corridor traffic or reduce the corridor width below the minimum standard.

**8.2.2.2 Ceiling height.** The minimum ceiling height shall be 7 feet 10 inches (2.39 meters), with the following exceptions:

- (1) Corridors, storage rooms, toilet rooms, etc. Ceilings in these spaces shall be not less than 7 feet 8 inches (2.34 meters) in height. Ceiling heights in small, normally unoccupied spaces may be reduced.
- (2) Rooms with ceiling-mounted equipment/light fixtures. Ceilings in radiographic, operating, and delivery rooms, and other rooms containing ceiling-mounted equipment or ceiling-mounted surgical light fixtures, shall be of sufficient height to accommodate the equipment or fixtures and their normal movement.
- (3) Seclusion treatment rooms. These rooms shall have a minimum ceiling height of 9 feet (2.74 meters).
- (4) Boiler rooms. Boiler rooms shall have ceiling clearances not less than 2 feet 6 inches (76.20 centimeters) above the main boiler header and connecting piping.
- (5) Clearances
  - (a) Suspended tracks, rails, and pipes located in the traffic path for patients in beds and/or on stretchers, including those in inpatient service areas, shall be not less than 7 feet (2.13 meters) above the floor. Clearances in other areas may be 6 feet 8 inches (2.03 meters).
  - (b) Where existing structures make the above ceiling clearance impractical, clearances shall be as required to avoid injury to individuals up to 6 feet 4 inches (1.93 meters) tall.

### 8.2.2.3 Doors

#### (1) Door type

- (a) All doors between corridors, rooms, or spaces subject to occupancy, except elevator doors, shall be of the swing type.

- (b) Manual or automatic sliding doors may be exempt from this standard where fire and other emergency exiting requirements are not compromised and where cleanliness of surfaces can be maintained.

#### (2) Door size

- (a) General. Where used in these Guidelines, door width and height shall be the nominal dimension of the door leaf, ignoring projections of frame and stops. **Note:** Although these standards are intended to accommodate access by patients and patient equipment, size of office furniture, etc., shall also be considered.
  - (b) Inpatient bedrooms
    - (i) New construction. The minimum door size for inpatient bedrooms in new work shall be 3 feet 8 inches (1.12 meters) wide and 7 feet (2.13 meters) high to provide clearance for movement of beds and other equipment.
    - (ii) Renovation. Existing doors of not less than 2 feet 10 inches (86.36 centimeters) wide may be considered for acceptance where function is not adversely affected and replacement is impractical.
  - (c) Rooms for stretchers/wheelchairs. Doors to other rooms used for stretchers (including hospital wheeled-bed stretchers) and/or wheelchairs shall have a minimum width of 2 feet 10 inches (86.36 centimeters).
- (3) Door swing. Doors, except those to spaces such as small closets not subject to occupancy, shall not swing into corridors in a manner that might obstruct traffic flow or reduce the required corridor width. (Large walk-in-type closets are considered inhabitable spaces.)

#### (4) Door hardware

- (a) Patient bathing/toilet facilities

- (i) Rooms that contain bathtubs, sitz baths, showers, and/or water closets for inpatient use shall be equipped with doors and hardware permitting emergency access from the outside.
  - (ii) When such rooms have only one opening or are small, the doors shall open outward or in a manner that will avoid pressing a patient who may have collapsed within the room.
  - (iii) Similar considerations may be desirable for certain outpatient services.
- (b) Patient toilet rooms in psychiatric units. If required by the functional program, design of door hardware on patient toilet rooms in psychiatric nursing units shall be permitted to allow staff to control access.

#### 8.2.2.4 Thresholds and expansion joints

- (1) Thresholds and expansion joint covers shall be flush with the floor surface to facilitate the use of wheelchairs and carts.
- (2) Expansion and seismic joints shall be constructed to restrict the passage of smoke.

#### 8.2.2.5 Windows

- (1) Operable windows. Operable windows are not required in patient rooms. If operable windows are provided in patient rooms or suites, operation of such windows shall be restricted to inhibit possible escape or suicide.

8.2.2.6 Insect screens. Windows and outer doors that frequently may be left open shall be equipped with insect screens.

#### 8.2.2.7 Glazing materials

**Note:** Provisions of this section concern safety from hazards of breakage. NFPA 101 contains additional requirements for glazing in exit corridors, etc., especially in buildings without sprinkler systems.

- (1) Safety glass; wired glass; or plastic, break-resistant material that creates no dangerous cutting edges when broken shall be used in the following:
  - (a) Glass doors, lights, sidelights, borrowed lights, and windows located within 12 inches (30.48 centimeters) of a door jamb (with a bottom-frame height of less than 5 feet or 1.52 meters above the finished floor)
  - (b) Wall openings in active areas such as recreation and exercise rooms, unless otherwise required for fire safety
- (2) Safety glass—tempered or plastic glazing materials shall be used for the following:
  - (a) Shower doors and bath enclosures
  - (b) Interior windows and doors, including those in pediatric and psychiatric unit corridors
- (3) Flame-spread ratings. Plastic and similar materials used for glazing shall comply with the flame-spread ratings of NFPA 101.
- (4) Renovation. In renovation projects, only glazing within 1 foot 6 inches (45.72 centimeters) of the floor must be changed to safety glass, wire glass, or plastic, break-resistant material.

#### 8.2.2.8 Hand-washing stations

- (1) Fittings. Location and arrangement of fittings for hand-washing stations shall permit their proper use and operation. Particular care shall be given to the clearances required for blade-type operating handles.
- (2) Mirrors. Mirrors shall not be installed at hand-washing stations in food preparation areas, nurseries, clean and sterile supply areas, scrub sinks, or other areas where asepsis control would be lessened by hair combing.
- (3) Provisions for hand drying
  - (a) Provisions for hand drying shall be included at all hand-washing stations except scrub sinks.

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- (b) These provisions shall be paper or cloth units enclosed to protect against dust or soil and to ensure single-unit dispensing. Hot air dryers shall be permitted provided that installation precludes possible contamination by recirculation of air.

- (4) Anchoring. Lavatories and hand-washing stations shall be securely anchored to withstand an applied vertical load of not less than 250 pounds (113.4 kilograms) on the fixture front.

**8.2.2.9 Grab bars.** Grab bars shall be provided in all patient toilets, showers, bathtubs, and sitz baths at a wall clearance of 1-1/2 inches (3.81 centimeters). Bars, including those that are part of such fixtures as soap dishes, shall be sufficiently anchored to sustain a concentrated load of 250 pounds (113.40 kilograms).

### 8.2.2.10 Radiation protection

- (1) Radiation protection requirements for x-ray and gamma ray installations shall conform with NCRP Report Nos. 33 and 49 and all applicable local requirements. Testing is to be coordinated with local authorities to prevent duplication of test observations or construction inspections.
- (2) Provision shall be made for testing completed installations before use. All defects shall be corrected before approval.

### 8.2.2.11 Noise control

- (1) Recreation rooms, exercise rooms, equipment rooms, and similar spaces where impact noises may be generated shall not be located directly over patient bed areas or delivery and operating suites, unless special provisions are made to minimize such noise.
- (2) The noise reduction criteria shown in Table 2.1-1 shall apply to partitions, floors, and ceiling construction in patient areas.

**8.2.2.12 Temperature control.** Rooms containing heat-producing equipment, such as boiler or heater rooms or laundries, shall be insulated and ventilated to prevent the floor surface above and/or the adjacent walls

of occupied areas from exceeding a temperature of 10°F (6°C) above ambient room temperature.

## 8.2.3 Finishes

### 8.2.3.1 Noncombustible or flame-retardant materials

- (1) Cubicle curtains and draperies shall be noncombustible or flame-retardant and shall pass both the large- and small-scale tests of NFPA 701 when applicable.
- (2) Materials and certain plastics known to produce noxious gases when burned shall not be used for mattresses, upholstery, and other items insofar as practical.

### 8.2.3.2 Floors

- (1) Floor materials shall be easily cleanable and appropriately wear-resistant for the location.
  - (a) Floors in areas used for food preparation or food assembly shall be water-resistant.
  - (b) Floor surfaces, including tile joints, shall be resistant to food acids.
  - (c) In all areas subject to frequent wet-cleaning methods, floor materials shall not be physically affected by germicidal cleaning solutions.
- (2) Floors subject to traffic while wet (such as shower and bath areas, kitchens, and similar work areas) shall have a nonslip surface.
- (3) In new construction or major renovation work, the floors and wall bases of all operating rooms and any delivery rooms used for cesarean sections shall be monolithic and joint free.
- (4) The floors and wall bases of kitchens, soiled workrooms, and other areas subject to frequent wet cleaning shall also be homogenous, but may have tightly sealed joints.
- (5) Floors in areas and rooms in which flammable anesthetic agents are stored or administered shall comply with NFPA 99.

## 8.2.3.3 Walls

- (1) Wall finishes. Wall finishes shall be washable. In the vicinity of plumbing fixtures, wall finishes shall be smooth and water-resistant.
- (2) Dietary and food preparation areas. In these areas, wall construction, finish, and trim, including the joints between the walls and the floors, shall be free of insect- and rodent-harboring spaces.
- (3) Operating rooms, cesarean delivery rooms, isolation rooms, and sterile processing rooms. In these rooms, wall finishes shall be free of fissures, open joints, or crevices that may retain or permit passage of dirt particles.

## 8.2.3.4 Ceilings

- (1) Ceilings, including exposed structure in areas normally occupied by patients or staff in food preparation and food storage areas, shall be cleanable with routine housekeeping equipment. Acoustic and lay-in ceiling, where used, shall not interfere with infection control.
- (2) In dietary areas and in other areas where dust fall-out may present a problem, suspended ceilings shall be provided.
- (3) Semirestricted areas
  - (a) Ceiling finishes in semirestricted areas such as airborne infection isolation rooms, protective environment rooms, clean corridors, central sterile supply spaces, specialized radiographic rooms, and minor surgical procedure rooms shall be smooth, scrubbable, nonabsorptive, nonperforated, capable of withstanding cleaning with chemicals, and without crevices that can harbor mold and bacterial growth.
  - (b) If lay-in ceiling is provided, it shall be gasketed or clipped down to prevent the passage of particles from the cavity above the ceiling plane into the semirestricted environment. Perforated, tegular, serrated cut, or highly textured tiles are not acceptable.

- (4) Restricted areas. Ceiling finishes in restricted areas such as operating rooms shall be monolithic, scrubbable, and capable of withstanding chemicals. Cracks or perforations in these ceilings are not allowed.

8.2.3.5 Penetrations. Floors and walls penetrated by pipes, ducts, and conduits shall be tightly sealed to minimize entry of rodents and insects. Joints of structural elements shall be similarly sealed.

8.2.3.6 Psychiatric patient locations. In psychiatric patient rooms, toilets, and seclusion rooms, the ceiling and air distribution devices, lighting fixtures, sprinkler heads, and other appurtenances shall be of a tamper-resistant type.

8.2.3.7 Protective isolation locations. Rooms used for protective isolation and anterooms adjacent to rooms used for protective isolation shall have seamless flooring with integral coved base.

## 9 Special Systems

### 9.1 General

#### 9.1.1 Testing

9.1.1.1 Prior to acceptance of the facility, all special systems shall be tested and operated to demonstrate to the owner or his designated representative that the installation and performance of these systems conform to design intent.

9.1.1.2 Test results shall be documented for maintenance files.

#### 9.1.2 Documentation

9.1.2.1 Upon completion of the special systems equipment installation contract, the owner shall be furnished with a complete set of manufacturers' operating, maintenance, and preventive maintenance instructions, a parts lists, and complete procurement information including equipment numbers and descriptions.

9.1.2.2 Operating staff persons shall also be provided with written instructions for proper operation of systems and equipment. Required information shall include all safety or code ratings as needed.

## 2.1 GENERAL HOSPITALS

### 9.1.3 Insulation

Insulation shall be provided surrounding special system equipment to conserve energy, protect personnel, and reduce noise.

## 9.2 Elevators

### 9.2.1 General

All hospitals having patient facilities (such as bedrooms, dining rooms, or recreation areas) or critical services (such as operating, delivery, diagnostic, or therapeutic areas) located on other than the grade-level entrance floor shall have electric or hydraulic elevators.

### 9.2.2 Number

In the absence of an engineered traffic study, the following guidelines for number of elevators shall apply:

9.2.2.1 At least two hospital-type elevators shall be installed where 1 to 59 patient beds are located on any floor other than the main entrance floor.

9.2.2.2 At least two hospital-type elevators shall be installed where 60 to 200 patient beds are located on floors other than the main entrance floor, or where the major inpatient services are located on a floor other than those containing patient beds. (Reduction in elevator service shall be permitted for those floors providing only partial inpatient services.)

9.2.2.3 At least three hospital-type elevators shall be installed where 201 to 350 patient beds are located on floors other than the main entrance floor, or where the major inpatient services are located on a floor other than those containing patient beds. (Reduction in elevator service shall be permitted for those floors providing only partial inpatient services.)

9.2.2.4 For hospitals with more than 350 beds, the number of elevators shall be determined from a study

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A9.2.3.2 Elevator car doors should have a clear opening of not less than 4.5 feet (1.37 meters).

A9.2.5.2 This is so the light control feature will be overridden or disengaged should it encounter smoke at any landing.

of the hospital plan and the expected vertical transportation requirements.

### 9.2.3 Dimensions and Clearances

9.2.3.1 Hospital-type elevator cars shall have inside dimensions that accommodate a patient bed with attendants. Cars shall be at least 5 feet 8 inches (1.73 meters) wide by 9 feet (2.74 meters) deep.

\*9.2.3.2 Car doors shall have a clear opening of not less than 4 feet (1.22 meters) wide and 7 feet (2.13 meters) high.

9.2.3.3 In renovations, an increase in the size of existing elevators shall not be required if the elevators can accommodate patient beds used in the facility.

9.2.3.4 Additional elevators installed for visitors and material handling shall be permitted to be smaller than noted above, within restrictions set by standards for disabled access.

### 9.2.4 Leveling Device

Elevators shall be equipped with a two-way automatic level-maintaining device with an accuracy of  $\pm 1/4$  inch ( $\pm 6.35$  millimeters).

### 9.2.5 Elevator Controls

9.2.5.1 Each elevator, except those for material handling, shall be equipped with an independent keyed switch for staff use for bypassing all landing button calls and responding to car button calls only.

\*9.2.5.2 Elevator call buttons and controls shall not be activated by heat or smoke. Light beams, if used for operating door reopening devices without touch, shall be used in combination with door-edge safety devices and shall be interconnected with a system of smoke detectors.

### 9.2.6 Installation and Testing

9.2.6.1 Standards. Installation and testing of elevators shall comply with ANSI/ASME A17.1 for new construction and ANSI/ASME A17.3 for existing facilities. (See ASCE/SEI 7 for seismic design and control systems requirements for elevators.)

9.2.6.2 Documentation. Field inspections and tests shall be made and the owner shall be furnished with

written certification stating that the installation meets the requirements set forth in this section as well as all applicable safety regulations and codes.

### 9.3 Waste Processing

For waste collection and storage and refuse chute requirements, see Section 2.1-6.5.3.

#### 9.3.1 Waste Treatment and Disposal

**9.3.1.1 Incineration.** On-site hospital incinerators shall comply with federal, state, and local regulatory and environmental requirements. The design and construction of incinerators shall comply with NFPA 82.

**9.3.1.2 Other technologies.** Types of non-incineration waste treatment technology(ies) shall be determined by the facility in conjunction with environmental, economic, and regulatory considerations. The functional program shall describe waste treatment technology components.

(1) Location

- (a) Safe transfer routes, distances from waste sources, temporary storage requirements, and space requirements for treatment equipment shall be considered in determining the location for a non-incineration technology.
- (b) The location of the technology shall not cause traffic problems as waste is brought in and out.
- (c) Odor, noise, and the visual impact of medical waste operations on patients, visitors, public access, and security shall be considered.

(2) Space requirements. These shall be determined by the equipment requirements, including associated area for opening waste entry doors, access to control panels, space for hydraulic lifts, conveyors, and operational clearances. Mobile or portable units, trailer-mounted units, underground installations, or all-weather enclosed shelters at an outdoor site may also be used, subject to local regulatory approvals.

(3) Ventilation. Exhaust vents, if any, from the treatment technology shall be located a minimum of

25 feet (7.62 meters) from inlets to HVAC systems. If the technology involves heat dissipation, sufficient cooling and ventilation shall be provided.

#### 9.3.2 Nuclear Waste Disposal

See Code of Federal Regulations, Title X, parts 20 and 35, concerning the handling and disposal of nuclear materials in health care facilities.

## 10 Building Systems

### 10.1 Plumbing

#### 10.1.1 General

Unless otherwise specified herein, all plumbing systems shall be designed and installed in accordance with the International Plumbing Code.

#### 10.1.2 Plumbing and Other Piping Systems

##### 10.1.2.1 General piping and valves

- (1) All piping, except control-line tubing, shall be identified.

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**A9.3.1.1** The EPA has identified medical waste incineration as a significant contributor to air pollution worldwide.

a. Health care facilities should seek to minimize incineration of medical waste, consistent with local and state regulations and public health goals.

b. When incinerators are used, consideration should be given to the recovery of waste heat from on-site incinerators used to dispose of large amounts of waste materials. Incinerators should be designed in a manner fully consistent with protection of public and environmental health, both on-site and off-site, and in compliance with federal, state, and local statutes and regulations. Toward this end, permit applications for incinerators and modifications thereof should be supported by Environmental Assessments and/or Environmental Impact Statements (EISs) and/or Health Risk Assessments (HRAs) as may be required by regulatory agencies. Except as noted below, such assessments should utilize standard U.S. EPA methods, specifically those set forth in U.S. EPA guidelines, and should be fully consistent with U.S. EPA guidelines for health risk assessment. Under some circumstances, however, regulatory agencies having jurisdiction over a particular project may require use of alternative methods.

## 2.1 GENERAL HOSPITALS

- (2) All valves shall be tagged, and a valve schedule shall be provided to the facility owner for permanent record and reference.
- (3) No plumbing piping shall be exposed overhead or on walls where possible accumulation of dust or soil may create a cleaning problem or where leaks would create a potential for food contamination.

### 10.1.2.2 Hemodialysis/hemoperfusion piping

- (1) In new construction and renovation in any hospital where hemodialysis or hemoperfusion is routinely performed, a separate water supply and a drainage facility that does not interfere with hand-washing shall be provided.
- (2) When the functional program includes hemodialysis, continuously circulated filtered cold water shall be provided. Piping shall be in accordance with AAMI RD6.2.

### 10.1.2.3 Potable water supply systems

- (1) Capacity. Systems shall be designed to supply water at sufficient pressure to operate all fixtures and equipment during maximum demand. Supply capacity for hot- and cold-water piping shall be determined on the basis of fixture units, using recognized engineering standards. When the ratio of plumbing fixtures to occupants is proportionally more than required by the building occupancy and is in excess of 1,000 plumbing fixture units, a diversity factor shall be permitted.
- (2) Valves. Each water service main, branch main, riser, and branch to a group of fixtures shall have valves.
  - (a) Stop valves shall be provided for each fixture.
  - (b) Appropriate panels for access shall be provided at all valves where required.
- (3) Backflow prevention
  - (a) Systems shall be protected against cross-connection in accordance with American Water Works Association (AWWA) Recommended

Practice for Backflow Prevention and Cross-Connection Control.

- (b) Vacuum breakers or backflow prevention devices shall be installed on hose bibs and supply nozzles used for connection of hoses or tubing in laboratories, housekeeping sinks, bedpan-flushing attachments, autopsy tables, etc.

- (4) Bedpan-flushing devices. Bedpan-flushing devices (may be cold water) shall be provided in each inpatient toilet room; however, installation is optional in psychiatric and alcohol-abuse units where patients are ambulatory.
- (5) Potable water storage. Potable water storage vessels (hot and cold) not intended for constant use shall not be installed.
- (6) Emergency eyewash and showers shall comply with ANSI Z358.1.

### 10.1.2.4 Hot water systems. See Section 1.6-2.1.2.1.

### 10.1.2.5 Drainage systems

- (1) Piping
  - (a) Drain lines from sinks used for acid waste disposal shall be made of acid-resistant material.
  - (b) Drain lines serving some types of automatic blood-cell counters shall be of carefully selected material that will eliminate potential for undesirable chemical reactions (and/or explosions) between sodium azide wastes and copper, lead, brass, solder, etc.
  - (c) Insofar as possible, drainage piping shall not be installed within the ceiling or exposed in operating and delivery rooms, nurseries, food preparation centers, food-serving facilities, food storage areas, central services, electronic data processing areas, electric closets, and other sensitive areas. Where exposed overhead drain piping in these areas is unavoidable, special provisions shall be made to

protect the space below from leakage, condensation, or dust particles.

(2) Floor drains

(a) Floor drains shall not be installed in operating and delivery rooms.

\*(b) If a floor drain is installed in cystoscopy, it shall contain a nonsplash, horizontal-flow flushing bowl beneath the drain plate.

(c) Dietary area floor drains and/or floor sinks

(i) Type. These shall be of a type that can be easily cleaned by removing the cover. Removable stainless steel mesh shall be provided in addition to grilled drain covers to prevent entry of large particles of waste that might cause stoppages.

(ii) Location. Floor drains or floor sinks shall be provided at all "wet" equipment (as ice machines) and as required for wet cleaning of floors. Location of floor drains and floor sinks shall be coordinated to avoid conditions where locations of equipment make removal of covers for cleaning difficult.

(3) Autopsy table drain systems. Drain systems for autopsy tables shall be designed to positively avoid splatter or overflow onto floors or back siphonage and for easy cleaning and trap flushing.

(4) Sewers. Building sewers shall discharge into community sewerage. Where such a system is not available, the facility shall treat its sewage in accordance with local and state regulations.

(5) Kitchen grease traps

(a) Grease traps shall be of capacity required.

(b) Grease traps shall be located and arranged to permit easy access without the need to enter food preparation or storage areas.

(c) Grease traps shall be accessible from outside the building without need to interrupt any services.

(6) Plaster traps. Where plaster traps are used, provisions shall be made for appropriate access and cleaning.

10.1.2.6 Condensate drains. See Section 1.6-2.1.2.2.

### 10.1.3 Plumbing Fixtures

In addition to the requirements of Section 1.6-2.1.3, the following standards shall apply to plumbing fixtures in a general hospital:

#### 10.1.3.1 Clinical sinks

(1) Clinical sinks shall be trimmed with valves that can be operated without hands. Single-lever or wrist blade devices shall be permitted. Handles on clinical sinks shall be at least 6 inches (15.24 centimeters) long.

(2) Clinical sinks shall have an integral trap wherein the upper portion of the water trap provides a visible seal.

10.1.3.2 Scrub sinks. Freestanding scrub sinks and lavatories used for scrubbing in procedure rooms shall be trimmed with foot, knee, or ultrasonic controls; single-lever wrist blades are not permitted.

### 10.1.4 Medical Gas and Vacuum Systems

10.1.4.1 Medical gas systems. The installation, testing, and certification of nonflammable medical gas and air systems shall comply with the requirements of NFPA 99. (See Table 2.1-5 for rooms requiring station outlets.)

## APPENDIX

**A10.1.2.5 (2)(b)** Floor drains in cystoscopy operating rooms have been shown to disseminate a heavily contaminated spray during flushing. Unless flushed regularly with large amounts of fluid, the trap tends to dry out and permit passage of gases, vapors, odors, insects, and vermin directly into the operating room.

For new construction, if the users insist on a floor drain, the drain plate should be located away from the operative site, and should be over a frequently flushed nonsplash, horizontal-flow type of bowl, preferably with a closed system of drainage. Alternative methods include (a) an aspirator/trap installed in a wall connected to the collecting trough of the operating table by a closed, disposable tube system, or (b) a closed system using portable collecting vessels. (See NFPA 99.)

## 2.1 GENERAL HOSPITALS

### 10.1.4.2 Vacuum systems

- (1) Clinical vacuum system installations shall be in accordance with NFPA 99. (See Table 2.1-5 for rooms that require station outlets.)
- (2) The vacuum discharge shall be located at least 25 feet from all outside air intakes, doors, and operable windows.

### 10.2 Heating, Ventilating, and Air-Conditioning (HVAC) Systems

#### \*10.2.1 General

##### \*10.2.1.1 Mechanical system design

- (1) Efficiency. The mechanical system shall be designed for overall efficiency and appropriate life-cycle cost. Details for cost-effective implementation of design features are interrelated and too numerous (as well as too basic) to list individually.
  - (a) Recognized engineering procedures shall be followed for the most economical and effective

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**A10.2.1** Remodeling and work in existing facilities may present special problems. As practicality and funding permit, existing insulation, weather stripping, etc., should be brought up to standard for maximum economy and efficiency. Consideration should be given to additional work that may be needed to achieve this.

**A10.2.1.1** Protection of HVAC systems against chemical, biological, and radiological attack should be considered. System design features that should be evaluated include protection of outside air intakes, location of return air grilles, and types of filtration. The following documents provide additional information regarding these issues:

a. "Guidance for Protecting Building Environments from Airborne Chemical, Biological, or Radiological Attacks," Department of Health and Human Services/Centers for Disease Control and Prevention/National Institute for Occupational Safety and Health, May 2002.

b. "Protecting Buildings and their Occupants from Airborne Hazards" (draft), Army Corps of Engineers, TI 853-01, October 2001.

**A10.2.1.1 (2)(a)** It may be practical in many areas to reduce or shut down mechanical ventilation under appropriate climatic and patient care conditions and to use open windows for ventilation.

results. A well-designed system can generally achieve energy efficiency at minimal additional cost and simultaneously provide improved patient comfort.

- (b) Different geographic areas may have climatic and use conditions that favor one system over another in terms of overall cost and efficiency.
- (c) In no case shall patient care or safety be sacrificed for conservation.
- (d) Insofar as practical, the facility shall include provisions for recovery of waste cooling and heating energy (ventilation, exhaust, water and steam discharge, cooling towers, incinerators, etc.).
- (e) Use of recognized energy-saving mechanisms such as variable-air-volume (VAV) systems, load shedding, programmed controls for unoccupied periods (nights and weekends, etc.), and use of natural ventilation shall be considered, site and climatic conditions permitting.
- (f) Facility design considerations shall include site, building mass, orientation, configuration, fenestration, and other features relative to passive and active energy systems.

### (2) Air-handling systems

- \* (a) These shall be designed with an economizer cycle where appropriate to use outside air. (Use of mechanically circulated outside air does not reduce need for filtration.)
- (b) VAV systems. The energy-saving potential of variable-air-volume systems is recognized, and the standards herein are intended to maximize appropriate use of those systems. Any system used for occupied areas shall include provisions to avoid air stagnation in interior spaces where thermostat demands are met by temperatures of surrounding areas.
- (c) Noncentral air-handling systems (i.e., individual room units used for heating and cooling

purposes, such as fan-coil units, heat pump units, etc.). These units may be used as recirculating units only. All outdoor air requirements shall be met by a separate central air-handling system with proper filtration, as noted in Table 2.1-3.

- (3) Vibration isolators. Mechanical equipment, ductwork, and piping shall be mounted on vibration isolators as required to prevent unacceptable structure-borne vibration.
- (4) System valves. Supply and return mains and risers for cooling, heating, and steam systems shall be equipped with valves to isolate the various sections of each system. Each piece of equipment shall have valves at the supply and return ends.
- (5) Renovation. If system modifications affect greater than 10 percent of the system capacity, designers shall utilize pre-renovation water/air flow rate measurements to verify that sufficient capacity is available and that renovations have not adversely affected flow rates in non-renovated areas.

\*10.2.1.2 Ventilation and space conditioning requirements. All rooms and areas used for patient care shall have provisions for ventilation.

- (1) Ventilation rates. The ventilation systems shall be designed and balanced, as a minimum, according to the requirements shown in Table 2.1-2 and the applicable notes. The ventilation rates shown in Table 2.1-2 do not preclude the use of higher, more appropriate rates.
- (2) Air change rates. Air supply and exhaust in rooms for which no minimum total air change rate is noted may vary down to zero in response to room load. For rooms listed in Table 2.1-2, where VAV systems are used, minimum total air change shall be within limits noted.
- (3) Temperature and humidity. Space temperature and relative humidity shall be as indicated in Table 2.1-2.
- (4) Air movement direction. To maintain asepsis control, airflow supply and exhaust shall generally be

controlled to ensure movement of air from "clean" to "less clean" areas, especially in critical areas.

- (5) Although natural ventilation for nonsensitive areas and patient rooms (via operable windows) shall be permitted, mechanical ventilation shall be considered for all rooms and areas in the facility.

#### 10.2.1.3 Testing and documentation

- (1) Upon completion of the equipment installation contract, the owner shall be furnished with a complete set of manufacturers' operating, maintenance, and preventive maintenance instructions, parts lists, and complete procurement information, including equipment numbers and descriptions. Required information shall include energy ratings as needed for future conservation calculations.
- (2) Operating staff persons shall also be provided with written instructions for proper operation of systems and equipment.

#### 10.2.2 Requirements for Specific Locations

10.2.2.1 Airborne infection isolation rooms. The infectious disease isolation room is used for isolating the airborne spread of infectious diseases, such as measles, varicella, or tuberculosis.

- (1) The design of airborne infection isolation rooms (AIIRs) shall be permitted to include provisions for normal patient care during periods not requiring isolation precautions.
- (2) Use of supplemental recirculating devices shall be permitted in the patient room to increase the equivalent room air exchanges; however, such recirculating devices do not provide outside air

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A10.2.1.2 Owing to potential operational problems for the ultraviolet germicidal irradiation (UVGI) lamps, and the fact that the effectiveness of UVGI is dependent on the airflow pattern in the room, use of UVGI may be considered as a supplement to the ventilation system design, rather than the main control mechanism. The ACH of the room should therefore be set as if no UVGI system is installed.

## 2.1 GENERAL HOSPITALS

requirements. Recirculation of air within individual isolation rooms shall be permitted if HEPA filters are used.

- (3) Rooms with reversible airflow provisions for the purpose of switching between protective environment and AII functions are not acceptable.

**10.2.2.2 Protective environment rooms.** The protective environment (PE) room is used to protect the patient from common environmental airborne infectious microbes (i.e., *Aspergillus* spores).

- (1) These special ventilation areas shall be designed to provide directed airflow from the cleanest patient care area to less clean areas.
- (2) These rooms shall be protected with HEPA filters at 99.97 percent efficiency for a 0.3  $\mu\text{m}$  sized particle in the supply airstream. These interrupting filters protect patient rooms from maintenance-derived release of environmental microbes from the ventilation system components. Recirculation HEPA filters can be used to increase the equivalent room air exchanges.
- (3) Constant volume airflow is required for consistent ventilation for the protected environment.

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#### **A10.2.2.4 (3)(a) Operating and delivery room ventilation**

**a.** The operating and delivery room ventilation systems should operate at all times to maintain the air movement relationship to adjacent areas. The cleanliness of the spaces is compromised when the ventilation system is shut down. For example, airflow from a less clean space such as the corridor can occur, and standing water can accumulate in the ventilation system (near humidifiers or cooling coils).

**b.** The recommended air change rate in an operating room is 20 to 25 air changes per hour (ACH) for ceiling heights between 9 feet (2.74 meters) and 12 feet (3.66 meters).

**c.** The system should provide a single directional flow regime, with both high and low exhaust locations.

**d.** A face velocity of around 25 to 35 fpm (0.13 to 0.18 m/s) is sufficient from the non-aspirating diffuser array provided the array size itself is set correctly. The non-aspirating diffuser array size

(4) If the facility determines that airborne infection isolation is necessary for protective environment patients, an anteroom shall be provided.

(5) Rooms with reversible airflow provisions for the purpose of switching between protective environment and airborne infection isolation functions are not acceptable.

**10.2.2.3 Psychiatric patient areas.** Special consideration shall be given to the type of heating and cooling units, ventilation outlets, and appurtenances installed in patient-occupied areas of psychiatric units. The following shall apply:

- (1) All air grilles and diffusers shall be of a type that prohibits the insertion of foreign objects. All exposed fasteners shall be tamper-resistant.
- (2) All convector or HVAC enclosures exposed in the room shall be constructed with rounded corners and shall have enclosures fastened with tamper-resistant screws.
- (3) HVAC equipment shall be of a type that minimizes the need for maintenance within the room.

should be set appropriately such that it covers at least the area footprint of the table plus a reasonable margin around it. In the cited study, this margin is 21 inches (53.34 centimeters) on the short side and 12 inches (25.40 centimeters) on the long side.

**Note:** The above conclusions were derived from studies conducted by the National Institutes of Health: Farhad Memarzadeh and Andrew P. Manning, "Comparison of Operating Room Ventilation Systems in the Protection of the Surgical Site" (ASHRAE Transactions 2002, Vol. 108, pt. 2) and Farhad Memarzadeh and Zheng Jiang, "Effect of Operation Room Geometry and Ventilation System Parameter Variations on the Protection of the Surgical Site" (IAQ 2004).

**e.** If additional diffusers are required, they may be located outside this central diffuser array. Up to 30 percent of the central diffuser array may be allocated to non-diffuser items (medical gas columns, lights, etc.).

## 10.2.2.4 Operating and delivery rooms

## (1) Air supply

- (a) In new construction and major renovation work, air supply for operating and delivery rooms shall be from non-aspirating ceiling diffusers with a face velocity in the range of 25 to 35 fpm (0.13 to 0.18 m/s), located at the ceiling above the center of the work area. Return air shall be near the floor level, at a minimum. Return air shall be permitted high on the walls, in addition to the low returns.
- (b) Each operating and delivery room shall have at least two return-air inlets located as far from each other as practical.
- (c) Turbulence and other factors of air movement shall be considered to minimize the fall of particulates onto sterile surfaces.

## (2) Temperature. Temperature shall be individually controlled for each operating and delivery room.

## (3) Ventilation rates

- \* (a) Operating and delivery room ventilation systems shall operate at all times, except during maintenance and conditions requiring shut-down by the building's fire alarm system.
- (b) During unoccupied hours, operating and delivery room air change rates may be reduced, provided the positive room pressure is maintained as required in Table 2.1-2.

## (4) Standards for special procedures. Where extraordinary procedures, such as organ transplants, justify special designs, installation shall properly meet performance needs as determined by applicable standards. These special designs should be reviewed on a case-by-case basis.

10.2.2.5 Cough-inducing procedure rooms. Rooms used for sputum induction, aerosolized pentamidine treatments, or other cough-inducing procedures shall meet the requirements of Table 2.1-2 for airborne infection isolation rooms. If booths are used, refer to Section 2.1-5.8.1.

10.2.2.6 Anesthesia storage rooms. The ventilation system for anesthesia storage rooms shall conform to the requirements of NFPA 99, including the gravity option. Mechanically operated air systems are optional in these rooms.

10.2.2.7 ETO sterilizer space. The ventilation system for the space that houses ethylene oxide (ETO) sterilizers shall be designed as follows:

- (1) A dedicated (not connected to a return air or other exhaust system) exhaust system shall be provided. Refer to 29 CFR Part 1910.1047.
- (2) All source areas shall be exhausted, including the sterilizer equipment room, service/aeration areas, and the space above the sterilizer door, as well as the aerator.
  - (a) If the ETO cylinders are not located in a well-ventilated, unoccupied equipment space, an exhaust hood shall be provided over the cylinders.
  - (b) The relief valve shall be terminated in a well-ventilated, unoccupied equipment space or outside the building.
  - (c) If the floor drain to which the sterilizer(s) discharges is not located in a well-ventilated, unoccupied equipment space, an exhaust drain cap shall be provided (coordinate with local codes).
- (3) General airflow shall be away from the sterilizer operator(s).
- (4) A dedicated exhaust duct system for ETO shall be provided. The exhaust outlet to the outside shall be at least 25 feet (7.62 meters) away from any air intake.
- (5) An audible and visual alarm shall activate in the sterilizer work area, and in a 24-hour staffed location, upon loss of airflow in the exhaust system.

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### 10.2.2.8 Food preparation centers

- (1) Exhaust hoods handling grease-laden vapors in food preparation centers shall comply with NFPA 96.
- (2) All hoods over cooking ranges shall be equipped with grease filters, fire-extinguishing systems, and heat-actuated fan controls.
- (3) Cleanout openings shall be provided every 20 feet (6.10 meters) and at changes in direction in the horizontal exhaust duct systems serving these hoods. Horizontal runs of ducts serving range hoods shall be kept to a minimum.
- (4) Food preparation centers shall have ventilation systems whose air supply mechanisms are interfaced appropriately with exhaust hood controls or relief vents so that exfiltration or infiltration to or from exit corridors does not compromise the exit corridor restrictions of NFPA 90A or the pressure requirements of NFPA 96.

**10.2.2.9 Fuel-fired equipment rooms.** Rooms with fuel-fired equipment shall be provided with sufficient outdoor air to maintain equipment combustion rates and to limit workstation temperatures.

**10.2.3 Thermal Insulation and Acoustical Provisions**  
See Section 1.6-2.2.1.

### 10.2.4 HVAC Air Distribution

**10.2.4.1 Return air systems.** For patient care areas, return air shall be via ducted systems.

**10.2.4.2 HVAC ductwork.** See Section 1.6-2.2.2.1.

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**A10.2.4.3 (2)** Acceptable concentrations of anesthetizing agents are unknown at this time. The absence of specific data makes it difficult to set specific standards. However, any scavenging system should be designed to remove as much of the gas as possible from the room environment. It is assumed that anesthetizing equipment will be selected and maintained to minimize leakage and contamination of room air. See *Industrial Ventilation: A Manual of Recommended Practice*, published by the American Conference of Governmental Industrial Hygienists ([www.acgih.org](http://www.acgih.org)), for additional information.

### 10.2.4.3 Exhaust systems

- (1) General
  - (a) To enhance the efficiency of recovery devices required for energy conservation, combined exhaust systems shall be permitted.
  - (b) Local exhaust systems shall be used whenever possible in place of dilution ventilation to reduce exposure to hazardous gases, vapors, fumes, or mists.
  - (c) Fans serving exhaust systems shall be located at the discharge end and shall be readily serviceable.
  - (d) Airborne infection isolation rooms shall not be served by exhaust systems incorporating a heat wheel.

### \* (2) Anesthesia scavenging systems

- (a) Each space routinely used for administering inhalation anesthesia and inhalation analgesia shall be served by a scavenging system to vent waste gases.
- (b) When anesthesia scavenging systems are required, air supply shall be at or near the ceiling. Return or exhaust air inlets shall be near the floor level.
- (c) If a vacuum system is used, the gas-collecting system shall be arranged so it does not disturb patients' respiratory systems.
- (d) Gases from the scavenging system shall be exhausted directly to the outside. The anesthesia evacuation system may be combined with the room exhaust system, provided the part used for anesthesia gas scavenging exhausts directly to the outside and is not part of the recirculation system.
- (e) Scavenging systems are not required for areas where gases are used only occasionally, such as the emergency department, offices for routine dental work, etc.

## 10.2.4.4 Air outlets and inlets

## \*(1) Fresh air intakes

- (a) Fresh air intakes shall be located at least 25 feet (7.62 meters) from exhaust outlets of ventilating systems, combustion vents (including those serving rooftop air handling equipment), medical-surgical vacuum systems, plumbing vents, or areas that may collect vehicular exhaust or other noxious fumes. (Prevailing winds and/or proximity to other structures may require greater clearances.)
  - (b) Plumbing vents that terminate at a level above the top of the air intake may be located as close as 10 feet (3.05 meters).
  - (c) The bottom of outdoor air intakes serving central systems shall be as high as practical, but at least 6 feet (1.83 meters) above ground level, or, if installed above the roof, 3 feet (91.44 centimeters) above roof level.
- (2) Relief air. Relief air is exempt from the 25-foot (7.62-meter) separation requirement. Relief air is defined as air that otherwise could be returned (recirculated) to an air handling unit from the occupied space, but is being discharged to the outdoors to maintain building pressure, such as during outside air economizer operation.
  - (3) Gravity exhaust. Where conditions permit, gravity exhaust shall be permitted for nonpatient areas such as boiler rooms, central storage, etc.
  - (4) Construction requirements. The bottoms of air distribution devices (supply/return/exhaust) shall be at least 3 inches (7.62 centimeters) above the floor.

## 10.2.4.5 Ventilation hoods

## (1) Exhaust hoods and safety cabinets

- (a) Hoods and safety cabinets may be used for normal exhaust of a space providing minimum air change rates are maintained.
- (b) If air change standards in Table 2.1-2 do not provide sufficient air for proper operation of

exhaust hoods and safety cabinets (when in use), supplementary makeup air (filtered and preheated) shall be provided around these units to maintain the required airflow direction and exhaust velocity. Use of makeup air will avoid dependence upon infiltration from outdoor and/or from contaminated areas.

- (c) Makeup systems for hoods shall be arranged to minimize "short circuiting" of air and to avoid reduction in air velocity at the point of contaminant capture.
- (2) Laboratory fume hoods. Laboratory fume hoods shall meet the following standards:
    - (a) General standards
      - (i) An average face velocity of at least 75 feet per minute (0.38 meters per second)
      - (ii) Connection to an exhaust system to the outside that is separate from the building exhaust system
      - (iii) Location of an exhaust fan at the discharge end of the system
      - (iv) Inclusion of an exhaust duct system of noncombustible corrosion-resistant material as needed to meet the planned usage of the hood
    - (b) Special standards for use with strong oxidants
      - (i) Fume hoods and their associated equipment in the air stream intended for use with perchloric acid and other strong oxidants shall be constructed of stainless steel or other material consistent with special exposures.

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**A10.2.4.4 (1)** Requirements to minimize cross-contamination between fresh air intakes and various exhaust outlets may be determined by engineering modeling or calculations performed in accordance with the *ASHRAE Handbook—Fundamentals*.

## 2.1 GENERAL HOSPITALS

- (ii) These hoods and equipment shall be provided with a water wash and drain system to permit periodic flushing of duct and hood.
  - (iii) Electrical equipment intended for installation within such ducts shall be designed and constructed to resist penetration by water. Lubricants and seals shall not contain organic materials.
  - (iv) When perchloric acid or other strong oxidants are only transferred from one container to another, standard laboratory fume hoods and the associated equipment may be used in lieu of stainless steel construction.
- (c) Special standards for use with infectious or radioactive materials. In new construction and major renovation work, each hood used to process infectious or radioactive materials shall meet the following requirements:
- (i) Each hood shall have a minimum face velocity of 90 to 110 feet per minute (0.45 to 0.56 meters per second) with suitable pressure-independent air-modulating devices and alarms to alert staff of fan shutdown or loss of airflow.
  - (ii) Each shall also have filters with a 99.97 percent efficiency (based on the DOP test method) in the exhaust stream and be designed and equipped to permit the safe removal, disposal, and replacement of contaminated filters. Filters shall be as close to the hood as practical to minimize duct contamination.
  - (iii) Fume hoods intended for use with radioactive isotopes shall be constructed of stainless steel or other material suitable for the particular exposure and shall comply with NFPA 801, Facilities for Handling Radioactive Materials. **Note:** Radioactive isotopes used for injections, etc., without probability of airborne particulates or gases may be processed in a

clean-workbench-type hood where acceptable to the Nuclear Regulatory Commission.

### 10.2.5 HVAC Filters

#### 10.2.5.1 Filter efficiencies

- (1) All central ventilation or air conditioning systems shall be equipped with filters with efficiencies equal to, or greater than, those specified in Table 2.1-3.
- (2) Noncentral air-handling systems shall be equipped with permanent (cleanable) or replaceable filters with a minimum efficiency of MERV 3 (68 percent weight arrestance).
- (3) Filter efficiencies, tested in accordance with ASHRAE 52.1, shall be average.

**10.2.5.2 Filter bed location.** Where two filter beds are required, filter bed no. 1 shall be located upstream of the air conditioning equipment and filter bed no. 2 shall be downstream of any fan or blowers.

**10.2.5.3 Filter frames.** Filter frames shall be durable and proportioned to provide an airtight fit with the enclosing ductwork. All joints between filter segments and enclosing ductwork shall have gaskets or seals to provide a positive seal against air leakage.

**10.2.5.4 Filter housing blank-off panels.** Filter housing blank-off panels shall be permanently attached to the frame, constructed of rigid materials, and have sealing surfaces equal to or greater than the filter media installed in the filter frame.

**10.2.5.5 Filter manometers.** A manometer shall be installed across each filter bed having a required efficiency of 75 percent or more, including hoods requiring HEPA filters. Provisions shall be made to allow access to the manometer for field testing.

### 10.2.6 Steam and Hot Water Systems

See Section 1.6-2.2.3.

## 10.3 Electrical Systems

### 10.3.1 General

#### 10.3.1.1 Applicable standards

- (1) All electrical material and equipment, including conductors, controls, and signaling devices, shall be installed in compliance with applicable sections of NFPA 70 and NFPA 99.
- (2) All electrical material and equipment shall be listed as complying with available standards of listing agencies or other similar established standards where such standards are required.
- (3) Field labeling of equipment and materials shall be permitted only when provided by a nationally recognized testing laboratory that has been certified by the Occupational Safety and Health Administration (OSHA) for that referenced standard.

**10.3.1.2 Testing and documentation.** The electrical installations, including alarm, nurse call, and communication systems, shall be tested to demonstrate that equipment installation and operation is appropriate and functional. A written record of performance tests on special electrical systems and equipment shall show compliance with applicable codes and standards.

### 10.3.2 Electrical Requirements for Specific Hospital Locations

**10.3.2.1 Inhalation anesthetizing locations.** At inhalation anesthetizing locations, all electrical equipment and devices, receptacles, and wiring shall comply with applicable sections of NFPA 99 and NFPA 70.

### 10.3.3 Electrical Distribution and Transmission

#### 10.3.3.1 Switchboards

- (1) Location
  - (a) Main switchboards shall be located in an area separate from plumbing and mechanical equipment and shall be accessible to authorized persons only.
  - (b) Switchboards shall be convenient for use, readily accessible for maintenance, and away from traffic lanes.
  - (c) Switchboards shall be located in a dry, ventilated space free of corrosive or explosive fumes, gases, or any flammable material.

- (2) Overload protective devices. These shall operate properly in ambient room temperatures.

#### 10.3.3.2 Panelboards

- (1) Panelboards serving critical branch, equipment system, or normal system loads shall be located on the same floor as the loads to be served.
- (2) Location of panelboards serving life safety branch loads on the floor above or the floor below the loads to be served shall be permitted.
- (3) New panelboards shall not be located in public access corridors.

#### 10.3.3.3 Ground-fault circuit interrupters

- (1) Ground-fault circuit interrupters (GFCIs) shall comply with NFPA 70.
- (2) When ground-fault circuit interrupters are used in critical areas, provisions shall be made to ensure that other essential equipment is not affected by activation of one interrupter.

### 10.3.4 Power Generating and Storing Equipment

#### 10.3.4.1 Emergency electrical service

- (1) Emergency power shall be provided in accordance with NFPA 99, NFPA 101, and NFPA 110.
- (2) Where stored fuel is required, storage capacity shall permit continuous operation for at least 4 hours.

### 10.3.5 Lighting

#### 10.3.5.1 General. See Section 1.6-2.3.1.1.

#### 10.3.5.2 Lighting for specific locations in the hospital

- (1) Patient rooms. Patient rooms shall have general lighting and night lighting.
  - (a) A reading light shall be provided for each patient.
    - (i) Reading light controls shall be accessible to the patient(s) without the patient having to get out of bed.

## 2.1 GENERAL HOSPITALS

- (ii) Incandescent and halogen light sources that produce heat shall be avoided to prevent burns to the patient and/or bed linen.
  - (iii) Unless specifically designed to protect the space below, the light source shall be covered by a diffuser or lens.
  - (iv) Flexible light arms, if used, shall be mechanically controlled to prevent the lamp from contacting the bed linen.
- (b) At least one night light fixture in each patient room shall be controlled at the room entrance.
  - (c) Lighting for coronary and intensive care bed areas shall permit staff observation of the patient while minimizing glare.
- (2) Nursing unit corridors. Corridors in nursing units shall have general illumination with provisions for reducing light levels at night.
  - (3) Exam/treatment/trauma rooms. A portable or fixed examination light shall be provided for examination, treatment, and trauma rooms.
  - (4) Operating and delivery rooms. Operating and delivery rooms shall have general lighting in addition to special lighting units provided at surgical and obstetrical tables. General lighting and special lighting shall be on separate circuits.

10.3.5.3 Emergency lighting. See Section 1.6-2.3.1.2.

10.3.5.4 Exit signs. See Section 1.6-2.3.1.3.

### 10.3.6 Equipment

#### 10.3.6.1 X-ray equipment

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**A10.3.6.2** Special attention should be paid to safety hazards associated with equipment cabling. Every attempt should be made to minimize these hazards, where practical.

**A10.3.6.3** Refer to NFPA 99 for a description of the essential electrical system.

- (1) Fixed and mobile x-ray equipment installations shall conform to articles 517 and 660 of NFPA 70.
- (2) The x-ray film illuminator unit or units for displaying at least two films simultaneously shall be installed in each operating room, specified emergency treatment rooms, and x-ray viewing room of the radiology department. All illuminator units within one space or room shall have lighting of uniform intensity and color value.

**\*10.3.6.2** Special electrical equipment. Special equipment is identified in the sections on critical care units, newborn nurseries, pediatric and adolescent unit, psychiatric nursing unit, obstetrical suite, surgical suites, emergency service, imaging suite, nuclear medicine, laboratory suite, rehabilitation therapy department, renal dialysis unit, respiratory therapy service, morgue, pharmacy, dietary facilities, administrative and public areas, medical records, central services, general stores, and linen services. These sections shall be consulted to ensure compatibility between programmatically defined equipment needs and appropriate power and other electrical connection needs.

**\*10.3.6.3** Hand-washing stations and scrub sinks. If operation of a scrub sink or a hand-washing station in critical care areas, emergency departments, labor and delivery, and surgical suites is dependent on the building electrical service, it shall be connected to the essential electrical system.

### 10.3.7 Receptacles

#### 10.3.7.1 Receptacles in corridors

- (1) Duplex-grounded receptacles for general use shall be installed approximately 50 feet (15.24 meters) apart in all corridors and within 25 feet (7.62 meters) of corridor ends.
- (2) Receptacles in pediatric and psychiatric unit corridors shall be of the tamper-resistant type.
- (3) Special receptacles marked for x-ray use shall be installed in corridors of patient areas so that mobile equipment may be used anywhere within a patient room using a cord length of 50 feet (15.24 meters) or less. If the same mobile x-ray unit is used in operating rooms and in nursing

areas, receptacles for x-ray use shall permit the use of one plug in all locations. Where capacitive discharge or battery-powered x-ray units are used, special x-ray receptacles are not required.

#### 10.3.7.2 Receptacles in patient care areas

- (1) Patient rooms. Each patient room shall have duplex-grounded receptacles.
  - (a) There shall be one at each side of the head of each bed; one for television, if used; one on every other wall; and one for each motorized bed.
  - (b) Receptacles may be omitted from exterior walls where construction or room configuration makes installation impractical.
- (2) Intermediate care rooms. These shall have at least four duplex outlets per bed. The outlets shall be arranged to provide two duplex outlets on each side of the head of the bed.
- (3) Critical care areas. As defined by NFPA 99 and NFPA 70, including pediatric and newborn intensive care units, critical care areas shall have at least seven duplex outlets at the head of each bed, crib, or bassinets. Approximately 50 percent of critical care outlets shall be connected to emergency system power and be so labeled.
- (4) Nurseries. Nurseries shall have at least two duplex-grounded receptacles for each bassinets.
- (5) LDRP rooms. LDRP rooms shall have receptacles as required for patient rooms (Section 2.1-10.3.7.2 (1)); in addition, the bassinets shall have receptacles as required for nursery bassinets (Section 2.1-10.3.7.2 (4)).
- (6) Trauma and resuscitation rooms. These shall have eight duplex outlets located convenient to the head of each bed.
- (7) Emergency department. Examination and treatment rooms in the emergency department shall have a minimum of six duplex outlets located convenient to the head of each bed. Approximately 50 percent of emergency care outlets shall be

connected to emergency system power and be so labeled.

- (8) Each general care examination and treatment table and each work table shall have access to two duplex receptacles.
- (9) Operating and delivery rooms
  - (a) Each operating and delivery room shall have at least six receptacles convenient to the head of the procedure table.
  - (b) Each operating room shall have at least 16 simplex or eight duplex receptacles. Where mobile x-ray, laser, or other equipment requiring special electrical configurations is used, additional receptacles distinctively marked for x-ray or laser use shall be provided.
- (10) Renal dialysis units
  - (a) For renal dialysis units, two duplex receptacles shall be on each side of a patient bed or lounge chair.
  - (b) One duplex receptacle on each side of the bed shall be connected to emergency power.

**10.3.7.3 Emergency system receptacles.** Electrical receptacle cover plates or electrical receptacles supplied from the emergency systems shall be distinctively colored or marked for identification. If color is used for identification purposes, the same color shall be used throughout the facility.

#### 10.3.8 Call Systems

**10.3.8.1 General.** Alternate technologies shall be permitted for emergency or nurse call systems. If radio frequency systems are utilized, consideration shall be given to electromagnetic compatibility between internal and external sources.

**10.3.8.2 Patient room call station.** In patient areas, each patient room shall be served by at least one calling station for two-way voice communication.

- (1) Each bed shall be provided with a call device. Two call devices serving adjacent beds may be served by one calling station.

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### (2) Signal location

(a) Calls shall activate a visible signal in the corridor at the patient's door, in the clean workroom, in the soiled workroom, in medication, charting, clean linen storage, nourishment, equipment storage, and examination/treatment room(s) and at the nursing station of the nursing unit.

(b) In multi-corridor nursing units, additional visible signals shall be installed at corridor intersections.

(c) In rooms containing two or more calling stations, indicating lights shall be provided at each station.

(3) Nurse call systems at each calling station shall be equipped with an indicating light that remains lighted as long as the voice circuit is operating.

#### 10.3.8.3 Emergency call system

(1) The emergency call shall be designed so that a signal activated at a patient's call station will initiate a visible and audible signal that can be turned off only at the patient call station and that is distinct from the regular nurse call signal.

(2) The emergency call shall activate an annunciator panel at the nurse station, a visible signal in the corridor at the patient's door, and at other areas defined by the functional program.

(3) Specific locations in the hospital

(a) Patient toilet and bathing facilities. A nurse emergency call system shall be provided at each inpatient toilet, bath, sitz bath, and shower room. A nurse emergency call shall be accessible to a collapsed patient lying on the floor. Inclusion of a pull cord will satisfy this standard.

(b) Outpatient and treatment areas. Provisions for emergency calls shall be provided in outpatient and treatment areas where patients may be subject to incapacitation.

(c) Imaging suite. Patient toilet rooms within the imaging suite shall be equipped with a nurse emergency call.

(d) Renal dialysis units. Toilet rooms in renal dialysis units shall be served by an emergency call. The call shall activate a signal at the nurses' station.

**10.3.8.4 Limited call system.** In areas such as critical care, recovery, pre-op, and emergency, where patients are under constant visual surveillance, the nurse call may be limited to the following:

(1) A bedside button or station that activates a signal readily seen at the control station to summon additional assistance (see Section 2.1-10.3.8.5)

(2) An emergency code resuscitation alarm to summon medical assistance from the code team

#### 10.3.8.5 Staff emergency assistance system

(1) Location of call system. An emergency assistance system for staff to summon additional assistance shall be provided in each operating, delivery, recovery, emergency examination, treatment, and intermediate care area, and in critical care units, nurseries, special procedure rooms, cardiac catheterization rooms, stress-test areas, triage, outpatient surgery, admission and discharge areas, and areas for psychiatric patients, including seclusion and security rooms, anterooms and toilet rooms serving them, communal toilet and bathing facility rooms, and dining, activity, therapy, exam, and treatment rooms.

(2) Location of annunciator. This system shall annunciate visibly and audibly in the clean workroom, in the soiled workroom, in medication, charting, clean linen storage, nourishment, equipment storage, and examination/treatment room(s) if provided, and at the nursing station of the nursing unit, with backup to another staffed area from which assistance can be summoned.

**10.3.8.6 Emergency resuscitation alarm.** In critical care units, recovery, and pre-op, the call system shall include provisions for an emergency code resuscitation alarm to summon assistance from outside the unit.

10.3.8.7 Alarm in psychiatric units. A nurse call is not required in psychiatric nursing units, but if one is included the following shall apply:

- (1) Provisions shall be made for easy removal or for covering of call button outlets.
- (2) In psychiatric nursing units, all hardware shall have tamper-resistant fasteners.

**10.4 Telecommunications and Information Systems**

10.4.1 Locations for terminating telecommunications and information system devices shall be provided.

10.4.2 A room shall be provided for central equipment locations. Special air conditioning and voltage regulation shall be provided when recommended by the manufacturer.

10.4.3 All patient care-related telecommunications and information systems shall be powered from the essential electrical system.

**10.5 Electronic Safety and Security**

**10.5.1 Electronic Surveillance Systems**

Electronic surveillance systems include but are not limited to patient elopement systems, door access/control systems, video/audio monitoring systems, patient location systems, and infant abduction prevention systems.

10.5.1.1 Electronic surveillance systems are not required, but if provided for the safety of the patients, any devices in patient areas need to be mounted so they are unobtrusive and in a tamper-resistant enclosure.

10.5.1.2 Electronic surveillance system monitoring devices need to be located so they are not readily observable by the general public or patients.

10.5.1.3 If installed, electronic surveillance systems shall receive power from the emergency electrical system in the event of a disruption of normal electrical power.

**10.5.2 Fire Alarm System**

All health care facilities shall be provided with a fire alarm system in accordance with NFPA 101 and NFPA 72.

**Table 2.1-1  
Sound Transmission Limitations in General Hospitals**

	Airborne sound transmission class (STC) <sup>1</sup>	
	Partitions	Floors
<b>New construction<sup>2</sup></b>		
Patient room to patient room	45	40
Public space to patient room <sup>3</sup>	55	40
Service areas to patient room <sup>4</sup>	65	45
Patient room access corridor <sup>5</sup>	45	45
Exam room to exam room	45	--
Exam room to public space	45	--
Toilet room to public space	45	--
Consultation rooms/conference rooms to public space	45	--
Consultation rooms/conference rooms to patient rooms	45	--
Staff lounges to patient rooms	45	--
<b>Existing construction<sup>2</sup></b>		
Patient room to patient room	35	40
Public space to patient room <sup>3</sup>	40	40
Service areas to patient room <sup>4</sup>	45	45

<sup>1</sup> Sound transmission class (STC) shall be determined by tests in accordance with methods set forth in ASTM E90 and ASTM E413. Where partitions do not extend to the structure above, sound transmission through ceilings and composite STC performance must be considered.

<sup>2</sup> Treatment rooms shall be treated the same as patient rooms.

<sup>3</sup> Public space includes corridors (except patient room access corridors), lobbies, dining rooms, recreation rooms, and similar space.

<sup>4</sup> Service areas for the purposes of this table include kitchens, elevators, elevator machine rooms, laundries, garages, maintenance rooms, boiler and mechanical equipment rooms, and similar spaces of high noise. Mechanical equipment located on the same floor or above patient rooms, offices, nurses stations, and similar occupied space shall be effectively isolated from the floor.

<sup>5</sup> Patient room access corridors contain composite walls with doors/windows and have direct access to patient rooms.

## 2.1 GENERAL HOSPITALS

**Table 2.1-2**  
**Ventilation Requirements for Areas Affecting Patient Care in Hospitals and Outpatient Facilities<sup>1</sup>**

<i>Area designation</i>	<i>Air movement relationship to adjacent area<sup>2</sup></i>	<i>Minimum air changes of outdoor air per hour<sup>3</sup></i>	<i>Minimum total air changes per hour<sup>4,5</sup></i>	<i>All air exhausted directly to outdoors<sup>6</sup></i>	<i>Recirculated by means of room units<sup>7</sup></i>	<i>Relative humidity<sup>8</sup> (%)</i>	<i>Design temperature<sup>9</sup> (degrees F/C)</i>
<b>NURSING UNITS</b>							
Patient room	—	2	6 <sup>10</sup>	—	—	—	70-75 (21-24)
Toilet room	In	—	10	Yes	—	—	—
Newborn nursery suite	—	2	6	—	No	30-60	72-78 (22-26)
Protective environment room <sup>11</sup>	Out	2	12	—	No	—	75 (24)
Airborne infection isolation room <sup>11</sup>	In	2	12	Yes <sup>12</sup>	No	—	75 (24)
Isolation alcove or anteroom	In/Out	—	10	Yes	No	—	—
Patient corridor	—	—	2	—	—	—	—
<b>OBSTETRICAL FACILITIES</b>							
Delivery room <sup>13</sup>	Out	3	15	—	No	30-60	68-73 (20-23)
Labor/delivery/recovery	—	2	6 <sup>10</sup>	—	—	—	70-75 (21-24)
Labor/delivery/recovery/postpartum	—	2	6 <sup>10</sup>	—	—	—	70-75 (21-24)
<b>EMERGENCY, SURGERY, AND CRITICAL CARE</b>							
Operating/surgical cystoscopic rooms <sup>11,13</sup>	Out	3	15	—	No	30-60	68-73 (20-23) <sup>14</sup>
Recovery room <sup>13</sup>	—	2	6	—	No	30-60	70-75 (21-24)
Critical and intensive care	—	2	6	—	No	30-60	70-75 (21-24)
Intermediate care	—	2	6 <sup>10</sup>	—	—	—	70-75 (21-24)
Newborn intensive care	—	2	6	—	No	30-60	72-78 (22-26)
Treatment room <sup>15</sup>	—	—	6	—	—	—	75 (24)
Trauma room <sup>15</sup>	Out	3	15	—	No	30-60	70-75 (21-24)
Bronchoscopy <sup>11</sup>	In	2	12	Yes	No	30-60	68-73 (20-23)
Triage	In	2	12	Yes <sup>16</sup>	—	—	70-75 (21-24)
ER waiting rooms	In	2	12	Yes <sup>12, 16</sup>	—	—	70-75 (21-24)
Procedure room	Out	3	15	—	No	30-60	70-75 (21-24)
Laser eye room	Out	3	15	—	No	30-60	70-75 (21-24)
X-ray (surgical/critical care and catheterization)	Out	3	15	—	No	30-60	70-75 (21-24)
Anesthesia gas storage	In	—	8	Yes	—	—	—
<b>SUPPORT AREAS</b>							
Medication room	Out	—	4	—	—	—	—
Clean workroom or clean holding	Out	—	4	—	—	—	—
Soiled workroom or soiled holding	In	—	10	Yes	No	—	—
<b>DIAGNOSTIC AND TREATMENT AREAS</b>							
Examination room	—	—	6	—	—	—	75 (24)
Treatment room	—	—	6	—	—	—	75 (24)
Physical therapy and hydrotherapy	In	—	6	—	—	—	75 (24)
Gastrointestinal endoscopy room	—	2	6	—	No	30-60	68-73 (20-23)
Endoscopic instrument processing room <sup>17</sup>	In	—	10	Yes	No	—	—
Imaging <sup>18</sup>	—	—	—	—	—	—	75 (24)
X-ray (diagnostic & treatment)	—	—	6	—	—	—	—
Darkroom	In	—	10	Yes	No	—	—
Imaging waiting rooms	In	2	12	Yes <sup>12, 16</sup>	—	—	70-75 (21-24)
Laboratory <sup>19</sup>	—	—	—	—	—	—	75 (24)
General <sup>18</sup>	—	—	6	—	—	—	75 (24)
Biochemistry <sup>18</sup>	In	—	6	Yes	No	—	75 (24)
Cytology	In	—	6	Yes	No	—	75 (24)
Glass washing	In	—	10	Yes	—	—	—

Table 2.1-2 (continued)

Ventilation Requirements for Areas Affecting Patient Care in Hospitals and Outpatient Facilities<sup>1</sup>

Area designation	Air movement relationship to adjacent area <sup>2</sup>	Minimum air changes of outdoor air per hour <sup>3</sup>	Minimum total air changes per hour <sup>4,5</sup>	All air exhausted directly to outdoors <sup>6</sup>	Recirculated by means of room units <sup>7</sup>	Relative humidity <sup>8</sup> (%)	Design temperature <sup>9</sup> (degrees F/C)
Histology	In	—	6	Yes	No	—	75 (24)
Microbiology <sup>10</sup>	In	—	6	Yes	No	—	75 (24)
Nuclear medicine	In	—	6	Yes	No	—	75 (24)
Pathology	In	—	6	Yes	No	—	75 (24)
Serology	In	—	6	Yes	No	—	75 (24)
Sterilizing	In	—	10	Yes	—	—	—
Autopsy room <sup>11</sup>	In	—	12	Yes	No	—	—
Nonrefrigerated body-holding room	In	—	10	Yes	—	—	70 (21)
<b>SERVICE AREAS</b>							
Pharmacy	Out	—	4	—	—	—	—
Food preparation center	—	—	10	—	No	—	—
Warewashing	In	—	10	Yes	No	—	—
Dietary day storage	In	—	2	—	—	—	—
Laundry, general	—	—	10	Yes	—	—	—
Soiled linen (sorting and storage)	In	—	10	Yes	No	—	—
Clean linen storage	Out	—	2	—	—	—	—
Soiled linen and trash chute room	In	—	10	Yes	No	—	—
Bedpan room	In	—	10	Yes	—	—	—
Bathroom	In	—	10	—	—	—	75 (24)
Housekeeping room	In	—	10	Yes	No	—	—
<b>STERILIZING AND SUPPLY</b>							
ETO-sterilizer room	In	—	10	Yes	No	30-60	75 (24)
Sterilizer equipment room	In	—	10	Yes	—	—	—
Central medical and surgical supply							
Soiled or decontamination room	In	—	6	Yes	No	—	68-73 (20-23)
Clean workroom	Out	—	4	—	No	30-60	75 (24)
Sterile storage	Out	—	4	—	—	(Max) 70	—

<sup>1</sup> The ventilation rates in this table cover ventilation for comfort, as well as for asepsis and odor control in areas of acute care hospitals that directly affect patient care and are determined based on healthcare facilities being predominantly "No Smoking" facilities. Where smoking may be allowed, ventilation rates will need adjustment. Areas where specific ventilation rates are not given in the table shall be ventilated in accordance with ASHRAE Standard 62, *Ventilation for Acceptable Indoor Air Quality*, and *ASHRAE Handbook—HVAC Applications*. Specialized patient care areas, including organ transplant units, burn units, specialty procedure rooms, etc., shall have additional ventilation provisions for air quality control as may be appropriate. OSHA standards and/or NIOSH criteria require special ventilation requirements for employee health and safety within health care facilities.

<sup>2</sup> Design of the ventilation system shall provide air movement which is generally from clean to less clean areas. If any form of variable air volume or load shedding system is used for energy conservation, it must not compromise the corridor-to-room pressure balancing relationships or the minimum air changes required by the table.

<sup>3</sup> To satisfy exhaust needs, replacement air from the outside is necessary. Table 2.1-2 does not attempt to describe specific amounts of outside air to be supplied to individual spaces except for certain areas such as those listed. Distribution of the outside air, added to the system to balance required

exhaust, shall be as required by good engineering practice. Minimum outside air quantities shall remain constant while the system is in operation. In variable volume systems, the minimum outside air setting on the air-handling unit shall be calculated using the ASHRAE 62 method.

<sup>4</sup> Number of air changes may be reduced when the room is unoccupied if provisions are made to ensure that the number of air changes indicated is reestablished any time the space is being utilized. Adjustments shall include provisions so that the direction of air movement shall remain the same when the number of air changes is reduced. Areas not indicated as having continuous directional control may have ventilation systems shut down when space is unoccupied and ventilation is not otherwise needed, if the maximum infiltration or exfiltration permitted in Note 2 is not exceeded and if adjacent pressure balancing relationships are not compromised. Air quantity calculations must account for filter loading such that the indicated air change rates are provided up until the time of filter change-out. The minimum total air change requirements for Table 2.1-2 shall be based on the supply air quantity in positive pressure rooms, and the exhaust air quantity in negative pressure rooms.

<sup>5</sup> Air change requirements indicated are minimum values. Higher values should be used when required to maintain indicated room conditions (temperature and humidity), based on the cooling load of the space (lights, equipment, people, exterior walls and windows, etc.).

## 2.1 GENERAL HOSPITALS

Table 2.1-2 (continued)

### Ventilation Requirements for Areas Affecting Patient Care in Hospitals and Outpatient Facilities<sup>1</sup>

<sup>6</sup> Air from areas with contamination and/or odor problems shall be exhausted to the outside and not recirculated to other areas. Note that individual circumstances may require special consideration for air exhaust to the outside, e.g., in intensive care units in which patients with pulmonary infection are treated, and rooms for burn patients.

<sup>7</sup> Recirculating room HVAC units refers to those local units that are used primarily for heating and cooling of air, and not disinfection of air. Because of cleaning difficulty and potential for buildup of contamination, recirculating room units shall not be used in areas marked "No." However, for airborne infection control, air may be recirculated within individual isolation rooms if HEPA filters are used. Isolation and intensive care unit rooms may be ventilated by reheat induction units in which only the primary air supplied from a central system passes through the reheat unit. Gravity-type heating or cooling units such as radiators or convectors shall not be used in operating rooms and other special care areas. See footnote A7 (at the bottom of the page) for a description of recirculation units to be used in isolation rooms.

<sup>8</sup> The ranges listed are the minimum and maximum limits where control is specifically needed. The maximum and minimum limits are not intended to be independent of a space's associated temperature. The humidity is expected to be at the higher end of the range when the temperature is also at the higher end, and vice versa. See Figure 2.1-1 for a graphic representation of the indicated changes on a psychrometric chart. Shaded area is acceptable range.

<sup>9</sup> Where temperature ranges are indicated, the systems shall be capable of maintaining the rooms at any point within the range during normal operation. A single figure indicates a heating or cooling capacity of at least the indicated temperature. This is usually applicable when patients may be undressed and require a warmer environment. Nothing in these guidelines shall be construed as precluding the use of temperatures lower than those noted when the patients' comfort and medical conditions make lower temperatures desirable. Unoccupied areas such as storage rooms shall have temperatures appropriate for the function intended.

<sup>10</sup> Total air changes per room for patient rooms, intermediate care, labor/delivery/recovery rooms, and labor/delivery/recovery/postpartum rooms may be reduced to 4 when supplemental heating and/or cooling systems (radiant heating and cooling, baseboard heating, etc.) are used.

<sup>11</sup> Differential pressure shall be a minimum of 0.01" water gauge (2.5 Pa). If alarms are installed, allowances shall be made to prevent nuisance alarms of monitoring devices.

<sup>12</sup> If it is not practical to exhaust the air from the airborne infection isolation room to the outside, the air may be returned through HEPA filters to the air-handling system exclusively serving the isolation room.

<sup>13</sup> National Institute for Occupational Safety and Health (NIOSH) Criteria Documents regarding Occupational Exposure to Waste Anesthetic Gases and Vapors, and Control of Occupational Exposure to Nitrous Oxide indicate a need for both local

exhaust (scavenging) systems and general ventilation of the areas in which the respective gases are utilized.

<sup>14</sup> Some surgeons may require room temperatures that are outside of the indicated range. All operating room design conditions shall be developed in consultation with surgeons, anesthesiologists, and nursing staff.

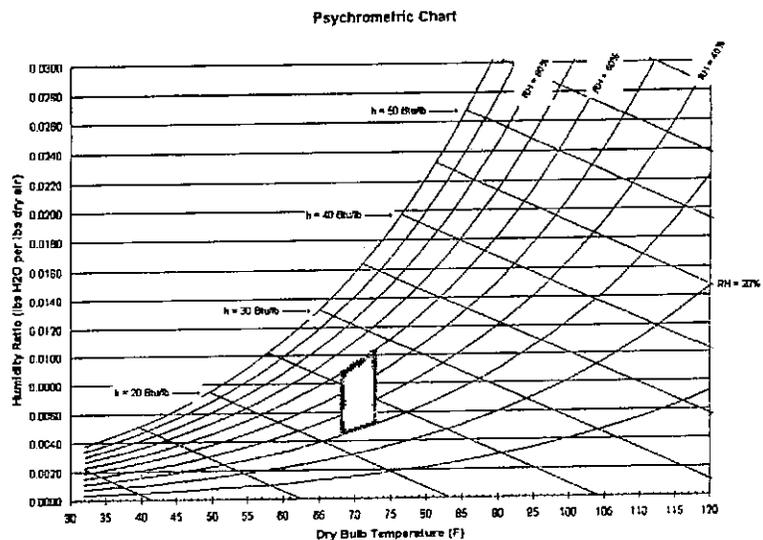
<sup>15</sup> The term trauma room as used here is the operating room space in the emergency department or other trauma reception area that is used for emergency surgery. The first aid room and/or "emergency room" used for initial treatment of accident victims may be ventilated as noted for the "treatment room." Treatment rooms used for bronchoscopy shall be treated as bronchoscopy rooms. Treatment rooms used for cryosurgery procedures with nitrous oxide shall contain provisions for exhausting waste gases.

<sup>16</sup> In a ventilation system that recirculates air, HEPA filters can be used in lieu of exhausting the air from these spaces to the outside. In this application, the return air shall be passed through the HEPA filters before it is introduced into any other spaces.

<sup>17</sup> The endoscopic instrument processing room is a room adjacent to the gastrointestinal endoscopy room that is used for cleaning endoscopic equipment and instruments.

<sup>18</sup> When required, appropriate hoods and exhaust devices for the removal of noxious gases or chemical vapors shall be provided (see Section 2.1-10.2.4.5. (2) and NFPA 99).

<sup>19</sup> The air movement relationships for laboratories apply between laboratory and adjacent non-laboratory spaces. Reference DHHS publication "Biosafety in Microbiological and Biomedical Laboratories" (CDC and NIH) on the CDC Web site.



## APPENDIX

<sup>47</sup> Recirculating devices with HEPA filters may have potential uses in existing facilities as interim, supplemental environmental controls to meet requirements for the control of airborne infectious agents. Limitations in design must be recognized. The design of either portable or fixed systems should prevent stagnation and short circuiting of airflow. The supply and exhaust locations should direct clean air to areas where health care workers are likely to work, across the infectious source, and then to

the exhaust, so that the health care worker is not in position between the infectious source and the exhaust location. The design of such systems should also allow for easy access for scheduled preventative maintenance and cleaning.

<sup>48</sup> The verification of airflow direction can include a simple visual method such as smoke trail, ball-in-tube, or flutterstrip. These devices will require a minimum differential air pressure to indicate airflow direction.

**Table 2.1-3**  
**Filter Efficiencies for Central Ventilation and Air Conditioning Systems in General Hospitals**

Area designation	No. filter beds	Filter bed	Filter bed
		no. 1 (MERV, %)	no. 2 (MERV, %)
All areas for inpatient care, treatment, and diagnosis, and those areas providing direct service or clean supplies such as sterile and clean processing, etc.	2	8 (30%)	14 (90%)
Protective environment room	2	8 (30%)	17 (99.97%)
Laboratories	1	13 (80%)	—
Administrative, bulk storage, soiled holding areas, food preparation areas, and laundries	1	8 (30%)	—

**Notes**

1. Additional roughing or prefilters should be considered to reduce maintenance required for filters with efficiency higher than 75 percent.
2. MERV = minimum efficiency rating value. MERVs are based on ASHRAE 52.2.
3. The filtration efficiency ratings are based on average dust spot efficiency per ASHRAE 52.1.

**Table 2.1-4**  
**Hot Water Use—General Hospital**

	Clinical	Dietary	Laundry
Liters per hour per bed <sup>1</sup>	11.9	7.2	7.6
Gallons per hour per bed <sup>1</sup>	3	2	2
Temperature (°C)	41-49 <sup>2</sup>	49 <sup>3</sup>	71 <sup>4</sup>
Temperature (°F)	105-120 <sup>2</sup>	120 <sup>3</sup>	160 <sup>4</sup>

<sup>1</sup>Quantities indicated for design demand of hot water are for general reference minimums and shall not substitute for accepted engineering design procedures using actual number and types of fixtures to be installed. Design will also be affected by temperatures of cold water used for mixing, length of run and insulation relative to heat loss, etc. As an example, total quantity of hot water needed will be less when temperature available at the outlet is very nearly that of the source tank and the cold water used for tempering is relatively warm.

<sup>2</sup>The range represents the maximum and minimum allowable temperatures.

<sup>3</sup>Provisions shall be made to provide 180°F (82°C) rinse water at ware-washer (may be by separate booster) unless a chemical rinse is provided.

<sup>4</sup>Provisions shall be made to provide 160°F (71°C) hot water at the laundry equipment when needed. (This may be by steam jet or separate booster heater.) However, it is emphasized that this does not imply that all water used would be at this temperature. Water temperatures required for acceptable laundry results will vary according to type of cycle, time of operation, and formula of soap and bleach as well as type and degree of soil. Lower temperatures may be adequate for most procedures in many facilities, but the higher 160°F (71°C) should be available when needed for special conditions.

## 2.1 GENERAL HOSPITALS

**Table 2.1-5**  
**Station Outlets for Oxygen, Vacuum (Suction), and Medical Air Systems in Hospitals<sup>1</sup>**

<i>Section</i>	<i>Location</i>	<i>Oxygen</i>	<i>Vacuum</i>	<i>Medical Air</i>
2.1-3.1.1	Patient rooms (medical and surgical)	1/bed	1/bed	—
2.1-3.1.3	Examination/treatment (medical, surgical, and postpartum care)	1/room	1/room	—
2.1-3.2.2/3.2.3	Airborne infection isolation/protective environment rooms	1/bed	1/bed	—
2.1-3.2.4	Seclusion room (medical, surgical, and postpartum)	1/bed	1/bed	—
2.1-3.3	Intermediate care	2/bed	2/bed	1/bed
2.1-3.4.2	Critical care (general)	3/bed	3/bed	1/bed
2.1-3.4.2.2	Airborne infection isolation	3/bed	3/bed	1/bed
2.1-3.4.3	Coronary critical care	3/bed	2/bed	1/bed
2.1-3.4.5	Pediatric critical care	3/bed	3/bed	1/bed
2.1-3.4.6	Newborn intensive care	3/bassinets	3/bassinets	3/bassinets
2.1-3.6.6	Newborn nursery (full-term)	1/4 bassinets <sup>2</sup>	1/4 bassinets <sup>2</sup>	1/4 bassinets <sup>2</sup>
2.1-3.6.8	Pediatric nursery	1/bassinets	1/bassinets	1/bassinets
2.1-3.7.1	Pediatric and adolescent	1/bed	1/bed	1/bed
2.1-3.8.2	Psychiatric patient rooms	—	—	—
2.1-3.8.3	Seclusion treatment room	—	—	—
2.1-5.3.2.1	General operating room	2/room	3/room	—
2.1-5.3.2.2	Cardio, ortho, neurological	2/room	3/room	—
2.1-5.3.2.3	Orthopedic surgery	2/room	3/room	—
2.1-5.3.2.4	Surgical cysto and endo	1/room	3/room	—
2.1-5.3.3.2	Post-anesthesia care unit	1/bed	3/bed	1/bed
2.1-5.3.3.3	Phase II recovery <sup>3</sup>	1/bed	3/bed	—
2.1-5.3.5.11	Anesthesia workroom	1 per workstation	—	1 per workstation
2.1-4.2.1	Postpartum bedroom	1/bed	1/bed	—
2.1-4.3.1	Labor room	1/room	1/room	1/room
2.1-4.3.2/4.3.3	Cesarean/delivery room	2/room	3/room	1/room
2.1-4.3.4	Infant resuscitation space <sup>4</sup>	1/bassinets	1/bassinets	1/bassinets
2.1-4.3.5	OB recovery room	1/bed	3/bed	1/room
2.1-4.4	Labor/delivery/recovery (LDR)	1/bed	1/bed	—
2.1-4.4	Labor/delivery/recovery/postpartum (LDRP)	1/bed	1/bed	—
2.1-5.1.2.5	Initial emergency management	1/bed	1/bed	—
2.1-5.1.3.4	Triage area (definitive emergency care)	1/station	1/station	—
2.1-5.1.3.7 (1)	Definitive emergency care exam/treatment rooms	1/bed	1/bed	1/bed
2.1-5.1.3.8 (2)	Definitive emergency care observation unit	1/bed	1/bed	—
2.1-5.1.3.7 (1)	Trauma/cardiac room(s)	2/bed	3/bed	1/bed
2.1-5.1.3.7 (3)	Orthopedic and cast room	1/room	1/room	—
2.1-5.5.5	MRI	1/room	1/room	1/room
2.1-5.4.1	Cardiac catheterization lab	2/bed	2/bed	2/bed
2.1-5.12.2.2	Autopsy room	—	1 per workstation	—

<sup>1</sup>For any area or room not described above, the facility clinical staff shall determine outlet requirements after consultation with the authority having jurisdiction.

<sup>2</sup>Four bassinets may share one outlet that is accessible to each bassinet.

<sup>3</sup>If the Phase II recovery area is a separate area from the PACU, only one vacuum per bed or station shall be required.

<sup>4</sup>When infant resuscitation takes place in a room such as cesarean section/delivery or LDRP, then the infant resuscitation services must be provided in that room in addition to the minimum service required for the mother.

IV.  
Criterion 1110.234 - Project Services Utilization

This project includes the following Clinical Service Areas that are Categories of Service.

Medical-Surgical Category of Service  
Intensive Care Category of Service  
Obstetric Categories of Service

In addition to the Clinical Service Areas that are Categories of Service, this project includes the following Clinical Service Areas Other than Categories of Service.

Surgery  
Post-Anesthesia Recovery (PACU, Recovery)  
Surgical Prep (for both A.M. Admits and Same-Day Surgery Patients) and  
Stage II Recovery  
Endoscopy  
Emergency Department  
Diagnostic Imaging (Radiology, Radiography/Fluoroscopy, Ultrasound,  
CT Scanning, MRI Scanning, Nuclear Medicine)  
Labor/Delivery/Recovery Suite  
C-Section Suite  
Newborn Nurseries (Level I, Level II)  
Inpatient Physical Therapy/Occupational Therapy  
Non-Invasive Diagnostic Cardiology } These Services share support areas and  
Neurodiagnostics } are, therefore, shown as 1 department for  
Pulmonary Function Testing } square footage purposes  
Respiratory Therapy  
Pre-Admission Testing  
Inpatient Acute Dialysis  
Clinical Laboratory, including Morgue  
Pharmacy  
Central Sterile Processing/Distribution  
Dietary

The Illinois certificate of need (CON) Rules include State Guidelines (77 Ill. Adm. Code 1110.APPENDIX B) for the following Clinical Service Areas that are part of this project.

Medical-Surgical Service  
Intensive Care Service  
Obstetric Service  
Surgery (State Guidelines identify this as "Surgical Operating Suite (Class C)")  
Post-Anesthesia Recovery Phase I (PACU, Recovery)  
Post-Anesthesia Recovery Phase II (State Guidelines do not include  
Surgical Prep.)  
Endoscopy (State Guidelines identify this as "Surgical Procedure Suite  
(Class B)")  
Emergency Department  
Diagnostic Imaging (Radiology, Radiography/Fluoroscopy, Ultrasound,  
CT Scanning, MRI Scanning, Nuclear Medicine)

Labor/Delivery/Recovery Suite  
 C-Section Suite  
 Newborn Nurseries (Level I, Level II)

The State Guidelines (77 Ill. Adm. Code 1110.APPENDIX B) do not include utilization standards or occupancy targets, but do include square footage standards.

Post-Anesthesia Recovery Phase I (PACU, Recovery)  
 Post-Anesthesia Recovery Phase II (State Guidelines do not include Surgical Prep.)  
 Newborn Nurseries (Level I, Level II)

There are no State Guidelines (77 Ill. Adm. Code 1110.APPENDIX B) for the balance of the Clinical Service Areas that are included in this project. These Clinical Service Areas are listed below.

Inpatient Physical Therapy/Occupational Therapy  
 Non-Invasive Diagnostic Cardiology  
 Neurodiagnostics  
 Pulmonary Function Testing  
 Respiratory Therapy  
 Pre-Admission Testing  
 Inpatient Acute Dialysis  
 Clinical Laboratory, including Morgue  
 Pharmacy  
 Central Sterile Processing/Distribution  
 Dietary

Space programs for all Clinical Service Areas included in this project, including those Clinical Service Areas for which State Guidelines do not exist in 77 Ill. Adm. Code 1110, APPENDIX B, will be found in Attachment 14 of this application. These space programs identify the number of key rooms for each of the Clinical Service Areas.

The chart below identifies the State Guidelines that exist for the Clinical Service Areas included in this project.

<b>CLINICAL SERVICE AREA</b>	<b>STATE GUIDELINE</b>
Medical-Surgical Service	85% Occupancy of authorized beds for hospitals with 100-199 M/S beds
Intensive Care Service	60% Occupancy of authorized beds
Obstetric Service	75% Occupancy of authorized beds for 11-25 beds
Surgery	1,500 Hours of surgery per Operating Rm.
Recovery (Post-Anesthesia Recovery Phase I)	N/A for utilization Licensure: min. of 1 Recovery Station/OR

<b>CLINICAL SERVICE AREA</b>	<b>STATE GUIDELINE</b>
Stage II Recovery* (Post-Anesthesia Recovery Phase II)	N/A for utilization Licensure: min. of 4 Recovery Stations/OR
Endoscopy	1,500 Hours per Procedure Room
Emergency Department	2,000 Visits per Treatment Station
Diagnostic Imaging	
Radiology	8,000 Procedures per Unit
Radiology/Fluoroscopy	6,500 Procedures per Unit
Ultrasound	3,100 Visits per Unit
CT Scanning	7,000 Visits per Unit
MRI	2,500 Procedures per Unit
Nuclear Medicine	2,000 Visits per Unit
Labor/Delivery/Recovery Suite	400 Births per LDR
C-Section Suite	800 Procedures per C-Section Room
Newborn Nursery (Levels I, II)	N/A for utilization State Guideline only for square footage

\*Please note that Stage II Recovery is combined with Surgical Prep for A.M. Admissions and Same-Day Surgical patients

Projected utilization for the first 2 years of operation for Clinical Service Areas for which there are State Guidelines based upon utilization are found below.

<b>CLINICAL SERVICE AREAS AND GUIDELINE</b>	<b>PROJECTED UTILIZATION</b>		<b>STATE STANDARD</b>	<b>MET STANDARD IN YEAR 2?</b>
	<b>YEAR 1 2017</b>	<b>YEAR 2 2018</b>		
Medical-Surgical Patient Days*	25,371	34,867	85% Occupancy	Yes
Intensive Care Patient Days**	2,270	2,850	60% Occupancy	Yes
Obstetric Patient Days*	4,222	5,647	75% Occupancy	Yes
Surgery Hours	6,421	11,169	1,500 Hours per Operating Room	Yes

<u>CLINICAL SERVICE AREAS AND GUIDELINE</u>	<u>PROJECTED UTILIZATION</u>		<u>STATE STANDARD</u>	<u>MET STANDARD IN YEAR 2?</u>
	<u>YEAR 1 2017</u>	<u>YEAR 2 2018</u>		
Endoscopy Hours	1,837	2,899	1,500 Hours per Procedure Room	Yes
Emergency Visits	18,604	30,586	1,500 Hours per Treatment Station	Yes
Diagnostic Imaging				
Radiology Procedures	7,074	9,571	8,000 Procedures per Unit	Yes
Radiology/Fluoroscopy Procedures	5,269 Rad. + 121 Fluoro. = 5,390	7,128 Rad. + 648 Fluoro. = 7,776	6,500 Procedures per Unit	Yes
Ultrasound Visits	2,741	3,709	3,100 Visits per Unit	Yes
CT Scanning Visits	3,094	4,187	7,000 Visits per Unit	Yes
MRI Procedures	1,689	2,743	2,500 Procedures per Unit	Yes
Nuclear Medicine Visits	730	988	2,000 Visits per Unit	Yes
Labor/Delivery/Recovery births	1,497	2,022	400 Births per LDR	Yes
C-Section Procedures	606	819	800 Procedures per C-Section Room	Yes

\*Medical-Surgical and Obstetric Patient Days include Observation Days

\*\*Intensive Care Patient Days include Transfers into the Unit and Observation Days

The number of key rooms proposed for each Clinical Service Area for which there are State Guidelines based on utilization is presented on the next page.

<u>CLINICAL SERVICE AREA</u>	<u>STATE GUIDELINE (UNITS/ROOM)</u>	<u>PROJECTED YEAR 2 (2018) VOLUME</u>	<u>TOTAL PROPOSED BEDS/ ROOMS</u>
Medical-Surgical Service	85% Occupancy of authorized beds	34,867 Patient Days	100
Intensive Care Service	60% Occupancy of authorized beds	2,850 Patient Days	8
Obstetric Service	75% Occupancy of authorized beds	5,647 Patient Days	20
Surgery	1,500 Hours per Operating Room	11,169 Hours	8
Endoscopy	1,500 Hours per Procedure Room	2,899 Hours	2
Emergency	2,000 Visits per Treatment Station	30,586 Visits	13
Diagnostic Imaging			
Radiology	8,000 Procedures per Unit	9,571 Procedures	2
Radiology/Fluoroscopy	6,500 Procedures per Unit	7,128 Radiology + 648 Fluoroscopy = 7,776 Procedures	1
Ultrasound	3,100 Visits per Unit	3,709 Visits	2
CT Scanning	7,000 Visits per Unit	4,187 Visits	1
MRI	2,500 Procedures per Unit	2,743 Procedures	1
Nuclear Medicine	2,000 Visits per Unit	988 Visits	1
TOTAL Diagnostic Imaging	N/A	N/A	8
Labor/Delivery/Recovery Suite	400 Births per LDR	2,022 Births	6
C-Section Suite	800 Procedures per C-Section Room	819 Procedures	2

The assumptions underlying the projected utilization for all Clinical Service Areas for which State Guidelines regarding target occupancy or utilization exist are presented below and in Attachments 20 and 37. These assumptions were prepared by Deloitte Financial Advisory Services, LLP.

Medical-Surgical Category of Service

1. Using COMPdata via Intellimed, current Medical-Surgical volumes and Intensive Care volumes (i.e., number of cases and patient days) in the project's Primary Service Area (PSA) and Secondary Service Area (SSA) were analyzed by zip code by MS-DRG, age cohort and payor.
2. Projected 2018 cases and patient days for the Centegra Hospital - Huntley's PSA and SSA were projected, based upon Claritas population projections via Intellimed for the 2010-2015 period by zip code and age cohort.
3. Centegra Hospital - Huntley's estimated market share by zip code for the Medical-Surgical and Intensive Care Services was estimated, based upon Centegra Health System's historical caseload by zip code in the PSA and SSA for its existing hospitals.
4. The percentage of the existing market at Centegra Hospital - McHenry and Centegra Hospital - Woodstock that would be admitted to Centegra Hospital - Huntley was determined, based upon the assumption that a portion of the existing cases by zip code in the PSA would move to the new hospital because of the proximity of a zip code to the Huntley site.

The percentage of the existing market that would remain at existing Centegra hospitals was determined based on the methodology provided in the previous paragraph.

5. The impact of projected population growth in the PSA and SSA by the first two full years of operation of Centegra Hospital - Huntley was estimated by using Claritas' projection of population growth via Intellimed by zip code and age cohort.
6. Centegra Hospital - Huntley's market share for Medical-Surgical and Intensive Care admissions in the PSA and SSA was estimated to be 17.4% during the first full year of operation of the hospital's operation (FY17). This market share was estimated to increase to 22.8% in the second full year of the hospital's operation (FY18).
7. The projected Medical-Surgical and Intensive Care cases and patient days in FY18 were assumed to increase in comparison to the projected Medical-Surgical and Intensive Care cases and patient days in FY17 due to the "ramp up" of services after Centegra Hospital - Huntley becomes operational. The number of cases in FY17 are estimated to be 73.7% of the cases in FY18.
8. 8.2% and 7.6% of Centegra Hospital - Huntley's estimated Medical-Surgical patient days for both FY17 and FY18 respectively were removed because these patient days were estimated to constitute the utilization of the Intensive Care Unit.

### Intensive Care Category of Service

After the estimated Medical-Surgical patient days were calculated, as described in the preceding section, 8.2% and 7.6% of Centegra Hospital - Huntley's Medical-Surgical patient days for both FY17 and FY18 respectively were removed from the projected utilization of the Medical-Surgical Category of Service.

These patient days are estimated to constitute the utilization of Centegra Hospital - Huntley's Intensive Care Category of Service.

### Obstetric Category of Service

1. Using COMPdata via Intellimed, current Obstetric volumes (i.e., number of cases and patient days) in the project's Primary Service Area (PSA) and Secondary Service Area (SSA) were analyzed by zip code by MS-DRG, age cohort and payor.
2. Projected 2018 cases and patient days for the Centegra Hospital - Huntley's PSA and SSA were projected, based upon Claritas population projections via Intellimed for the 2010-2015 period by zip code and age cohort.
3. Centegra Hospital - Huntley's estimated market share by zip code for the Obstetric Service was estimated, based upon Centegra Health System's historical caseload by zip code experience in the PSA and SSA for its existing hospitals and to address the bed need as identified by the Illinois Health Facilities and Services Review Board.
4. The percentage of the existing market at Centegra Hospital - McHenry and Centegra Hospital - Woodstock that would be admitted to Centegra Hospital - Huntley was determined, based upon the assumption that a portion of the existing cases in the PSA would move to the new hospital because of the proximity of a zip code to the Huntley site.

The percentage of the existing market that would remain at existing Centegra hospitals was determined based on the methodology provided in the previous paragraph.

5. The impact of projected population growth in the PSA and SSA by the first two full years of operation of Centegra Hospital - Huntley was estimated by using Claritas' projection of population growth via Intellimed by zip code and age cohort.
6. Centegra Hospital - Huntley's market share for Obstetric admissions in the PSA and SSA was estimated to be 27.8% during the first full year of operation of the hospital's operation (FY17). This market share was estimated to increase to 36.7% in the second full year of the hospital's operation (FY18).
7. The projected Obstetric cases and patient days in FY18 were assumed to increase in comparison to the projected Obstetric cases and patient days in FY17 due to the "ramp up" of services after Centegra Hospital - Huntley

becomes operational. The number of cases in FY17 are estimated to be 74.8% of the cases in FY18.

### Surgery

1. The number of Surgical cases was determined by using the following assumptions.
  - a. The total number of inpatient Surgical cases was estimated to be 22.68% of total estimated inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.
  - b. The total number of outpatient Surgical cases was estimated to be 3.93% of total outpatient visits.

The estimated total number of outpatient visits was calculated at 14.68 outpatient visits per inpatient admission. This ratio is based upon the ratio of outpatient visits to inpatient admissions that is experienced at Centegra Hospital - McHenry.
  - c. Because of the competition in the Surgery Service in the market area, the projected number of surgery cases was reduced to 90% of the projected number of both inpatient and outpatient cases that was calculated in a. and b. above.
2. Surgical hours were determined based upon the following assumptions.
  - a. Inpatient Surgical cases will average 2.17 hours (130 minutes) including clean-up and set-up time, based on historic experience at Centegra Hospital - McHenry.
  - b. Outpatient Surgical cases will average 1.15 hours (69 minutes) including clean-up and set-up time, based on historic experience at Centegra Hospital - McHenry.

### Endoscopy

1. The number of Endoscopy cases was determined by using the following assumptions.
  - a. The total number of inpatient Endoscopy cases was estimated to be 11.35% of total estimated inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

- b. The total number of outpatient Endoscopy cases was estimated to be 2.3% of total outpatient visits.

The estimated total number of outpatient visits was calculated at 14.68 outpatient visits per inpatient admission. This ratio is based upon the ratio of outpatient visits to inpatient admissions that is experienced at Centegra Hospital - McHenry.

- c. Because of the competition in the Endoscopy Service in the market area, the projected number of endoscopy cases was reduced to 70% of the projected number of both inpatient and outpatient cases that was calculated in a. and b. above.
2. Endoscopy hours were determined based upon the following assumptions.
    - a. Inpatient Endoscopy cases will average 0.858 hours (51.48 minutes) including clean-up and set-up time, based on historic experience at Centegra Hospital - McHenry.
    - b. Outpatient Endoscopy cases will average 0.847 hours (50.81 minutes) including clean-up and set-up time, based on historic experience at Centegra Hospital - McHenry.

#### Emergency

The number of Emergency visits was determined by using the following assumptions.

1. 65.1% of inpatient admissions at Centegra Hospital - Huntley will be directly from the hospital's Emergency Department.
2. There will be 3.14 outpatient visits in the Emergency Room for each inpatient admission to the hospital.
3. Because of the competition for Emergency Services in the market area, the projected number of Emergency cases was reduced to 75% of the projected number of both inpatient and outpatient cases that was calculated in 1. and 2. above.

#### Diagnostic Imaging: Radiology and Fluoroscopy

The number of Radiology and Fluoroscopy procedures was determined by using the following assumptions.

1. The total number of inpatient Radiology and Fluoroscopy procedures was estimated to be 161 procedures per 100 inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

### Diagnostic Imaging: Ultrasound

The number of Ultrasound visits was determined by using the following assumptions.

1. The total number of inpatient Ultrasound visits was estimated to be 14.12% of total estimated inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

2. The total number of outpatient Ultrasound visits was estimated to be 1.3% of total outpatient visits.

The estimated total number of outpatient visits was calculated at 14.68 outpatient visits per inpatient admission. This ratio is based upon the ratio of outpatient visits to inpatient admissions that is experienced at Centegra Hospital - McHenry.

### Diagnostic Imaging: CT Scanning

The number of CT visits was determined by using the following assumptions.

1. The CT Scanner at Centegra Hospital - Huntley will be used only for inpatient scanning. The CT Scanner at Centegra Ambulatory Center in Huntley, which is adjacent to the proposed hospital, will continue to be used for all outpatient CT scanning at this site.
2. The total number of inpatient CT visits was estimated by assuming that 38.9% of the hospital's inpatient admissions would have an average of 1.92 CT procedures.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

### Diagnostic Imaging: MRI

The number of MRI procedures was determined by using the following assumptions.

1. The MRI Scanner at Centegra Hospital - Huntley will be used for both inpatient and outpatient scanning.
2. The total number of inpatient MRI procedures was estimated to be 12.94% of total estimated inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

3. The total number of outpatient MRI procedures was estimated to be 2.01% of total outpatient visits.

The estimated total number of outpatient visits was calculated at 14.68 outpatient visits per inpatient admission. This ratio is based upon the ratio of outpatient visits to inpatient admissions that is experienced at Centegra Hospital - McHenry.

4. Because of the competition for MRI scanning in the market area, the projected number of MRI procedures was reduced to 60% of the projected number of both inpatient and outpatient cases that was calculated in 2. and 3. above.

#### Diagnostic Imaging: Nuclear Medicine

The total number of Nuclear Medicine visits was estimated to be 9.18% of total estimated inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

#### Labor/Delivery/Recovery

98% of all Obstetrical admissions will utilize the Labor/Delivery/Recovery Suite.

#### C-Section Suite

40.5% of all Obstetrical admissions will have a procedure in the C-Section Suite.

Source of Assumptions Underlying Projected Utilization for Clinical Service Areas:  
Deloitte Financial Advisory Services, LLP (December 19, 2010)

VII.A.3.

Criteria 1110.530.(b)(1)-(b)(3), (b)(5), (c), (e)-(g)

Service Specific Review Criteria:

Medical-Surgical, Obstetric, and Intensive Care

This project includes the establishment of the Medical-Surgical, Obstetric, and Intensive Care Services at Centegra Hospital - Huntley.

As indicated on Page 19 of the CON application form, this project will establish 100 Medical-Surgical beds, 20 Obstetric beds, and 8 Intensive Care beds at Centegra Hospital - Huntley.

1. Criterion 1110.530.(b)(1) - Planning Area Need: 77 Ill. Adm. Code 1100 (formula calculation)

A. The "Revised Bed Need Determinations" issued by the Illinois Department of Public Health (IDPH), dated December 17, 2010, identify a Bed Need in Planning Area A-10 for 69 Medical-Surgical/Pediatric beds, 21 Obstetric beds, and 8 Intensive Care beds.

For that reason, the establishment of the Obstetric and Intensive Care Categories of Service with the number of beds proposed for this project are in accordance with the formula calculation for planning area need that is stated in 77 Ill. Adm. Code 1110.530.b)1).

B. In addition to the 69 Medical-Surgical/Pediatric beds shown as needed in the IDPH's "Revised Bed Need Determinations" dated December 17, 2010, additional bed need in the Medical-Surgical/Pediatric and Obstetric Categories of Service has been created in Planning Area A-10 since that date because Memorial Medical Center - Woodstock d/b/a Centegra Hospital - Woodstock and Centegra Health System abandoned their CON permit for Project #08-002 in favor of pursuing the project that is the subject of this certificate of need (CON) application.

The reasons for the abandonment of Project #08-002 are explained more fully in the December 20, 2010, letter from Michael S. Eesley, Chief Executive Officer of Centegra Health System, to Dale Galassie, Chairman of the Illinois Health Facilities and Services Review Board (IHFSRB), which is appended and found on Pages 21 and 22 of this Attachment.

As a result of the abandonment of Project #08-002, the number of existing beds in Planning Area A-10 is decreased by the 14 Medical-Surgical beds and 6 Obstetric beds that were approved in the abandoned project, and the Bed Need for Planning Area A-10 is increased by the same numbers.

Category of Service	Adjusted Bed Need for 2015 now that #08-002 is abandoned	Centegra Hospital - Huntley Proposed Beds
Medical-Surgical/ Pediatric Beds	83	100
Intensive Care Beds	8	8
Obstetric Beds	27	20
Total, These Categories of Service	118	128

C. Projected population growth figures that are presented later in this Attachment as justification for Project Service Demand - Based on Rapid Population Growth specified in 77 Ill. Adm. Code 1110.530.b)3)C) and in Attachment 12 of this application demonstrate that there will be bed need for 21 additional Medical-Surgical/Pediatric beds in Planning Area A-10 by Centegra Hospital - Huntley's second complete year of operation because the "Calculated (Adjusted) Beds Needed" will increase to 310 by mid-2018.

2. Criterion 1110.530.(b)(2)(A) - Service to Planning Area Residents: Applicants proposing to establish or add beds

The primary purpose of this project is to provide necessary health care to residents of Planning Area A-10 (McHenry County) and, in particular, to the geographic service area (identified as the market area) for Centegra Hospital - Huntley.

Centegra Hospital - Huntley will be located in McHenry County, and a majority of the population that the hospital is proposing to serve during FY18, the second full year when the hospital will be operational, will be residents of McHenry County.

That is because a majority of the residents of the market area that is designated for Centegra Hospital - Huntley during FY18 will be residents of McHenry County.

The market area for Centegra Hospital - Huntley includes both Primary and Secondary Service Areas.

A map of the market area is found on Page 23 of this Attachment. This map is also found in the Market Assessment and Impact Study of Centegra Hospital -

Huntley, prepared by Deloitte Financial Advisory Services, LLP, which is found in Appendix A beginning on Page 44 of this Attachment, following the certification from Michael S. Eesley, Chief Executive Officer of Centegra Health System that appears on Page 43 of this Attachment.

The chart on Page 24 of this Attachment shows the estimated population of the market area by county in mid-2018, at the end of the second full year of operation of Centegra Hospital - Huntley. This chart documents that more than 60% of the residents of the market area are projected to be residents of McHenry County, which constitutes Planning Area A-10.

3. Criterion 1110.530.(b)(3) - Service Demand - Establishment of Bed Category of Service

This CON application proposes the establishment of a new health care facility: Centegra Hospital - Huntley.

This Rule allows an applicant proposing to establish a new hospital to document Service Demand under "either subsection (b)(3)(B) [Projected Referrals] or ( C) [Rapid Population Growth]. Centegra Hospital - Huntley opts to document Service Demand under subsection( C), Rapid Population Growth.

There is language in this Rule that, on first glance, would appear to make the requirement for projected referrals mandatory: "If the applicant proposes to establish a new hospital, the applicant shall submit projected referrals." However, interpreting this language as applicable to **all** applicants to establish a new hospital would render the clearly optional language quoted above meaningless and superfluous. A closer reading of both the mandatory provision and optional provision, in the context of the entire Rule, shows that the two can be reconciled.

An interpretation of the Rule that gives force and effect to all its provisions, and renders none as meaningless or superfluous, is the following:

Applicants that are existing facilities seeking to establish a new Category of Service must document Service Demand with both Historical Referrals and Projected Referrals;

Applicants proposing to establish a new hospital that opt to document service demand with Referrals must submit Projected Referrals but are not required to submit Historical Referrals;

Applicants proposing to establish a new hospital may opt to document Service Demand by Rapid Population Growth instead of by Projected Referrals.

As allowed by this Rule, Centegra Hospital - Huntley has opted to document Service Demand under subsection C, Rapid Population Growth, instead of under subsection B, Projected Referrals.

A. Criterion 1110.530.(b)(3)(A) - Historical Referrals

This subsection (b)(3)(A) applies only to existing facilities and is, therefore, not applicable because this CON application proposes to establish a new hospital.

B. Criterion 1110.530.(b)(3)(B) - Projected Referrals

This subsection (b)(3)(B) is not applicable because the Rule allows applicants for the establishment of a new hospital to document Service Demand under "either subsection (b)(3)(B) or ( C)," and Centegra Hospital - Huntley has opted to document Service Demand under subsection ( C).

A reason Centegra Hospital - Huntley has not opted to document Service Demand with Projected Referrals is that the new hospital will become operational at the end of 2015, which is 5 years from now. It is not practical or reasonable for physicians to estimate the number of cases that they will be referring to the hospital during a 24-month period that will begin 5 years from now. Furthermore, since the need for this project is based in part upon projected population growth during the next 8 years, it is neither practical nor reasonable for physicians to provide an estimate of projected referrals that does not exceed their current historical caseload, as required by subsection (b)(3)(B).

Although this subsection is not applicable, Centegra Hospital - Huntley is submitting letters from 79 referring physicians and 5 additional hospital-based physicians to demonstrate that large numbers of physicians have committed to refer patients to the proposed hospital and to utilize its services. These letters include the physicians' notarized signatures.

The referral letters are found in Appendix B at the end of this Attachment.

C. Criterion 1110.530.(b)(3)© - Project Service Demand - Based on Rapid Population Growth

As discussed at the beginning of this Attachment, as of December 17, 2010, there was bed need in Planning Area A-10 for all the Obstetric beds and Intensive Care beds proposed for this project, as well as for 69 of the 100 Medical-Surgical beds proposed for this project.

The number of Medical-Surgical/Pediatric beds needed in Planning Area A-10 increased to 83 after Centegra Hospital - Woodstock and Centegra Health System abandoned IHFPB Project #08-002 in favor of pursuing the project that is the subject of this CON application.

Consequently, the demand for nearly all of the beds proposed for Centegra Hospital - Huntley is due to the formula calculation of bed need.

The bed need for the remaining 17 Medical-Surgical beds proposed for Centegra Hospital - Huntley is based upon rapid population growth in the market area that has been identified for this hospital.

The market area for Centegra Hospital - Huntley is defined as the zip codes shown below.

- Primary Service Area:

<u>Zip Code</u>	<u>Key Town</u>
60142	Huntley
60156	Lake in the Hills
60014	Crystal Lake
60102	Algonquin
60152	Marengo
60140	Hampshire
60110	Carpentersville
60180	Union
60118	Dundee
60136	Gilberts

- Secondary Service Area:

<u>Zip Code</u>	<u>Key Town</u>
60098	Woodstock
60013	Cary
60012	Crystal Lake
60039	Crystal Lake (post office boxes only)
60010	Barrington
60021	Fox River Grove

This market area is primarily located within Planning Area A-10. Much of the market area is also within the service area for Centegra Health System's primary care facilities in Huntley, which are located in the Centegra Ambulatory Center in Huntley that is on the same site as the proposed hospital. Construction of the Centegra Ambulatory Center in Huntley (originally named the Ambulatory Care Mall) was approved under Permit Number 07-015, which was granted a CON permit in June, 2007.

The market area selected for Centegra Hospital - Huntley is largely consistent with patient origin that has been experienced at the Centegra Ambulatory Center in Huntley. Patient origin for the Immediate Care Center and primary care physicians' offices at the Centegra Ambulatory Center in Huntley during FY10 (July 1, 2009 through June 30, 2010), which is provided below, indicates that the following zip codes constitute the market area for these programs, accounting for more than 85% of the patients seen at these facilities.

PATIENT ORIGIN FOR PATIENTS AT FACILITIES  
IN CENTEGRA AMBULATORY CENTER IN HUNTLEY

July 1, 2009 - June 30, 2010  
% of Total Patients

<u>Zip Code</u>	<u>Key Town</u>	<u>Immed. Care Center</u>	<u>Physician Offices</u>
60142	Huntley*	42.6%	34.3%
60156	Lake in the Hills*	20.4%	12.9%
60014	Crystal Lake*	8.2%	8.5%
60102	Algonquin*	6.2%	7.1%
60152	Marengo*	3.9%	4.9%
60098	Woodstock**	3.3%	8.7%
60140	Hampshire*	2.9%	2.8%
60110	Carpentersville*	1.3%	1.9%
60180	Union*	1.2%	1.1%
60118	Dundee*	0.7%	1.1%
60013	Cary**	0.6%	1.4%
60136	Gilberts*	0.5%	0.7%
60012	Crystal Lake**	<u>0.2%</u>	<u>1.0%</u>
		91.9%	86.5%

\*This zip code is in Centegra Hospital-Huntley's Primary Service Area

\*\*This zip code is in Centegra Hospital - Huntley's Secondary Service Area

Source: Centegra Health System Data System

The high utilization of the services at the Centegra Ambulatory Center in Huntley by residents of the market area demonstrates that a majority of patients projected to be seen at Centegra Hospital-Huntley are residents of the market area. Furthermore, it is projected that a majority of the patients are projected to be residents of Planning Area A-10, McHenry County, which is the planning area in which the project is located.

The market area selected for Centegra Hospital-Huntley is unique in patient origin in comparison to the inpatient origin that has been experienced at the other general acute care hospitals located in McHenry County: Centegra Hospital - McHenry; Centegra Hospital - Woodstock; and Mercy Harvard Memorial Hospital, which is a Critical Access Hospital.

Inpatient origin for each of these existing hospitals for the recent 12-month period of July 1, 2009 through June 30, 2010 is found on Pages 25 through 27 of this Attachment.

This project proposes to address rapid population growth in both the project market area as well as in the state-designated planning area (Planning Area A-10).

An analysis of the rapid population growth in the market area is found in the Market Assessment and Impact Study of Centegra Hospital - Huntley, prepared by Deloitte Financial Advisory Services, LLP, which is found in Appendix A at the end of this Attachment., following the physician referral letters.

A chart identifying this rapid population growth by zip code in the market area from 2010 through 2018 is found on Page 28 of this Attachment. This chart was prepared by Deloitte Financial Advisory Services and is also found in Table II of their Market Assessment and Impact Study in Appendix A to this Attachment.

- Current population figures for 2010 by zip code were secured from Claritas via Intellimed.

The 2010 population of the market area is 362,384, with 237,016 residents in the Primary Service Area and 125,368 residents in the Secondary Service Area.

- Population projections for 2015 by zip code within the planning area were also secured from Claritas via Intellimed.

The population of the market area is projected to increase to 392,531 by 2015 (an 8.32% increase), with the population in the

Primary Service Area increasing by 22,390 (a 9.45% increase) to 259,406 and the population in the Secondary Service Area increasing by 7,757 (a 6.19% increase) to 133,125.

- Charts showing the 2010 and 2015 population projections for the zip codes in the market area by sex and age are found on Pages 29 and 30 and in Exhibit II of Appendix A, both of which are part of this Attachment. The data in these charts were also secured from Claritas via Intellimed.

These data reveal the following.

- Five zip codes in the Primary Service Area are expecting annual population growth of at least 2.0% from 2010 to 2015: 60102, 60136, 60140, 60146, 60156.

These annual increases are shown on the chart on Page 29.

- The age cohort with the highest population growth from 2010 to 2015 will be among those aged 65 and older in all the zip codes in the Primary Service Area, as shown on an annual basis in the same chart.
- Most of the zip codes in the Primary Service Area are aging markets; that is, the population aged 35 and older is growing faster than the overall market. This information is found on the same chart.
- Since Claritas projects population growth for only 5 years and Centegra Hospital - Huntley is not projected to become operational until late 2015, it was necessary to project population growth until the hospital's second full year of operation (FY18, July 1, 2017 - June 30, 2018) based on the annual growth rate for the 2010-2015 period. These population projections are found on Page 28 and also in Table I of Appendix A.

This projection was determined to be reasonable since it was consistent with population projections issued for McHenry County by the Illinois Department of Commerce and Economic Opportunity for the five year period of 2015-2020. ([www.ildceo.net/dceo/Bureaus/Facts\\_Figures/Population\\_Projections/](http://www.ildceo.net/dceo/Bureaus/Facts_Figures/Population_Projections/))

The population of the market area is projected to increase to 408,653 by mid-2018 (an increase of 46,269, nearly a 13% increase from 2010), with the population in the Primary Service

Area increasing by 34,410 (nearly a 15% increase from 2010) to 271,426 and the population in the Secondary Service Area increasing by 11,859 (more than a 9% increase from 2010) to 137,227.

The population in Planning Area A-10 was also determined to be experiencing rapid population growth, as discussed below and in Exhibit 1 of Appendix A.

The second full year of operation of Centegra Hospital - Huntley is planned to be its FY18 (July 1, 2017 - June 30, 2018). Although the "Inventory of Health Care Facilities and Services and Need Determinations," issued by the IHFSRB and IDPH on May 28, 2008, and revised in April, 2015, includes a 10-year population projection from 2005 to 2015, this population projection does not extend to the time when Centegra Hospital - Huntley will be operational.

The Illinois Department of Commerce and Economic Opportunity has issued population projections at 5-year intervals from 2000 through 2030 ([www.ildceo.net/dceo/Bureaus/Fact\\_Figures/Population\\_Projections](http://www.ildceo.net/dceo/Bureaus/Fact_Figures/Population_Projections)).

Using these population projections on an age-adjusted basis and interpolating the projected population growth from 2015 to 2020, it was possible to replicate the IHFPB/IDPH Bed Need Determinations and calculate the Adjusted Bed Need for the Medical-Surgical/Pediatrics Category of Service in Planning Area A-10 in mid-2018.

The formula in the Bed Need Determination for the Medical-Surgical/Pediatrics Category of Service, issued on May 28, 2008, uses the formula described on Page 31 of this Attachment. This same formula remains in effect with the revisions adopted in April, 2010. The only changes to the 2008 formula that are found in the 2010 revisions are the adoption of additional age groups in calculating bed need. The 2008 Bed Need Determination projected Medical-Surgical/Pediatric patient days for 2015, based on 3 age groups: 0-14 years old; 15-64 years old; and 65-up years old. The 2010 revision to the Bed Need Determination projects Medical-Surgical/Pediatric patient days based on 5 age groups: 0-14 years old; 15-44 years old; 45-64 years old; 65-74 years old; and 75-up years old.

The 2010 formula was used to project Calculated (Adjusted) Beds needed in mid-2018 based upon the population projections for mid-2018 discussed earlier in this section, and it is found on Pages 32 and 33 of this Attachment.

The Calculated (Adjusted) Beds Needed will be 310, an increase of 21 beds in this Category of Service from the projection for 2015. Based on the 206 Medical-Surgical/Pediatric beds that exist in Planning Area A-10, as of the submission date for this CON application, an additional 104 Medical-Surgical/Pediatric beds will be needed in Planning Area A-10 by mid-2018.

4. Criterion 1110.530.(b)(4) - Service Demand - Expansion of Existing Category of Service

This Criterion is not applicable to this project.

5. Criterion 1110.530.(b)(5)(A) - Service Accessibility: Service Restrictions

The beds being established will improve access to residents of Planning Area A-10 as well as to residents of nearby Planning Area A-11. As shown below, Centegra Hospital - Huntley will serve Medically Underserved Populations in Planning Area A-10 and will also serve Medically Underserved Areas and Health Professional Shortage Areas in Planning Area A-11.

Also, restricted access to Medical-Surgical Services is documented by the following: (a) Planning Areas A-10 and A-11 have the highest and second highest Bed Need, respectively, of all planning areas in the State and are 2 of the only 3 planning areas with a Bed Need for additional beds; (b) Planning Area A-10 has the highest level of net out-migration of all the planning areas in the Chicago metropolitan area; and (c) Planning Area A-10 has the second highest Medical-Surgical occupancy rate of all planning areas in the State.

- a. Within Planning Area A-10, there are 3 census tracts that have been designated by the Governor as having a federally-designated Medically Underserved Population, a designation that is made to document unusual conditions and barriers to accessing personal health services.

These census tracts (CT 8702.00, CT 8709.02, and CT 8710.02) are located within the Secondary Service Area for Centegra Hospital - Huntley.

A copy of this designation by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) is found on Page 34, followed by a map of the affected census tracts on Page 35

- b. Within the Primary Service Area for Centegra Hospital - Huntley, 1 census tract in Carpentersville (CT 8503.01) has been designated as a Medically Underserved Area/Population by HRSA of HHS.

A copy of this designation by HRSA of HHS is found on Page 36, while the designated census tract is found on the map on Page 37.

- c. Four townships in the Hampshire Service Area (Burlington Township, Hampshire Township, Plato Township, and Rutland Township) have been designated as a Health Manpower Shortage Area by HRSA of HHS.

Two of these townships (Hampshire and Rutland) are adjacent to the McHenry County line.

Rutland Township includes a portion of Huntley, the town in which Centegra Hospital - Huntley will be located. As noted earlier in this application, the proposed hospital site is 2 miles from the Kane County border, and zip code 60142 (Huntley) includes both McHenry County and Kane County locations within its boundaries. Rutland Township includes a portion of zip code 60136, which is part of the Market Area for this project, being located within its Primary Service Area.

Hampshire Township includes zip code 60140, which is part of the Market Area for this project, being located within its Primary Service Area.

A copy of this designation by HRSA of HHS is found on Page 38, while the designated census tracts are found on the map on Page 39.

- d. The Medical-Surgical/Pediatric Bed Need identified for Planning Areas A-10 (83 beds) and A-11 (61 beds) represent 144 beds, which is nearly all of the 171 Medical-Surgical/Pediatric beds needed in the entire State of Illinois in 2015.

The site of the proposed Centegra Hospital - Huntley is located only 2 miles from the Kane County border. In fact, the zip code in which the proposed hospital site is located (60142, Huntley) includes portions of both McHenry and Kane Counties.

It is important to note that the planning area identified as having the second highest Medical-Surgical/Pediatric Bed Need in the most recent IDPH "Revised Bed Need Determinations" for Medical-Surgical/Pediatric Bed Need is Planning Area A-11 (North Kane County), the planning area that is adjacent to Planning Area A-10 and which begins just 2 miles from the site of Centegra Hospital - Huntley. The most recent revision of the "Bed Need Determinations" identified a Bed Need in Planning Area A-11 for 61 additional Medical-Surgical/Pediatric Beds.

Portions of Planning Area A-11 are within the market area identified for Centegra Hospital - Huntley, as discussed in this Attachment, in the Market Assessment and Impact Study that is found in Appendix A of this Attachment, and in Attachment 12.

- e. Planning Area A-10 is also the planning area with the highest net out-migration of Medical-Surgical/Pediatric patient days of all 14 IHFSRB-designated planning areas in the Chicago metropolitan area, as identified in the most recent published IHFSRB/IDPH "Inventory of Health Care Facilities and Services and Need Determinations" (May 28, 2008).

The chart found on Page 40 of this Attachment documents that the ratio of Net Out-Migration of Medical-Surgical/Pediatric Patient Days to Total Medical-Surgical/Pediatric Days in Planning Area A-10 was 80%, while the next highest ratio was 67% for Planning Area A-13 (this percentage does not reflect the impact of the opening of the new Adventist Bolingbrook Hospital on out-migration since the hospital opened after 2005). The third highest ratio was 48% in Planning Area A-11 (North Kane County), while the percentage was 23% or less in the balance of the planning areas, with 7 of the 14 planning areas experiencing net in-migration.

- f. The 2009 occupancy rate for the Medical-Surgical and Pediatrics Categories of Service varied widely among the 40 planning areas in the State of Illinois, ranging from 81.9% to 22.9% occupancy of authorized beds in a planning area.

During 2009, Planning Area A-10 experienced a 77.6% occupancy rate of its currently authorized Medical-Surgical/Pediatric beds, reflecting the reduction of 14 Medical-Surgical authorized beds due to the abandonment of Project 08-002. The occupancy level experienced in this Planning Area was the second highest occupancy level experienced in any of the 40 planning areas in Illinois.

A chart comparing the occupancy levels experienced in the Medical-Surgical/Pediatric Categories of Service in all the planning areas is found on Page 41 of this Attachment, followed by a description of the methodology used to determine the occupancy percentage in Planning Area A-10 and in the other planning areas, which appears on Page 42 of this Attachment.

6. Criterion 1110.530.(c)(1) - Unnecessary Duplication

A. The following zip codes are located, in total or in part, within 30 minutes normal travel time of the project site.

<u>Zip Code</u>	<u>Key Town</u>
60010	Barrington
60012	Crystal Lake
60013	Cary
60014	Crystal Lake
60021	Fox River Grove
60039	Crystal Lake (post office boxes only)
60098	Woodstock
60102	Algonquin
60110	Carpentersville
60118	Dundee
60136	Gilberts
60140	Hampshire
60142	Huntley
60152	Marengo
60156	Lake in the Hills
60180	Union

B. The total population of these zip code areas, based upon the most recent population numbers available, is found below.

<u>Zip Code</u>	<u>Key Town</u>	<u>2010 Population</u>
60010	Barrington	44,088
60012	Crystal Lake	11,265
60013	Cary	30,084
60014	Crystal Lake	51,100
60021	Fox River Grove	6,274
60039	Crystal Lake (POBs only)	0
60098	Woodstock	33,657
60102	Algonquin	34,875
60110	Carpentersville	40,768
60118	Dundee	18,930
60136	Gilberts	6,670
60140	Hampshire	14,226
60142	Huntley	25,824
60152	Marengo	13,072
60156	Lake in the Hills	30,066
60180	Union	<u>1,485</u>
Total 2010 Population		362,384

Source: Claritas via Intellimed

- C. The names and locations of all hospitals located within 30 minutes normal travel time\* from the project site that provide the Medical-Surgical/ Pediatric, Intensive Care, and Obstetric Categories of Service are found below.

<u>Name and Location</u>	<u>Travel Time from Centegra Hospital - Huntley*</u>
Centegra Hospital - Woodstock, Woodstock	16 minutes
Centegra Hospital - McHenry, McHenry	25 minutes
Sherman Hospital, Elgin	20 minutes
Provena Saint Joseph Hospital, Elgin	24 minutes
Advocate Good Shepherd Hospital, Barrington	28 minutes

\*In accordance with 77 Ill. Adm. Code 1100.510.d)2), travel time has been calculated using Mapquest's determination ([www.mapquest.com](http://www.mapquest.com)) times 1.15.

There is 1 additional hospital located in Planning Area A-10 that provides Medical-Surgical and Intensive Care Services, but it is located more than 30 minutes travel time from the site of Centegra Hospital - Huntley, based on the definition of "travel time" in 77 Ill. Adm. Code 1100.510.d)2). Mercy Harvard Memorial Hospital, a Critical Access Hospital, is located 37 minutes from the project site, based upon Mapquest's determination ([www.mapquest.com](http://www.mapquest.com)) times 1.15.

7. Criterion 1110.530.(c)(2) - Maldistribution of Services

This project will not result in maldistribution of services. It will meet formula bed need and address the needs of the rapidly growing population in the market area and in Planning Area A-10 (McHenry County).

Furthermore, this project will correct an existing maldistribution of services within Planning Area A-10 by establishing the only hospital in the southern part of McHenry County.

The existing hospitals in McHenry County are located in the central part of McHenry County, and the closest hospital is located 11 miles away (Centegra Hospital - Woodstock).

The ratios of beds to population in McHenry County and the State of Illinois are shown below. These ratios have been calculated based upon beds per 1,000 population.

Category of Service	Planning Area A-10 (McHenry County)	State of Illinois
Medical-Surgical/Pediatrics	0.65	1.79
Intensive Care	0.10	0.25
Obstetrics	0.12	0.21

**Sources:**

Illinois Health Facilities Planning Board, Illinois Department of Public Health, "Inventory of Health Care Facilities and Services," May 28, 2008; Addendum to Inventory of Health Care Facilities, March 19, 2008 - November 19, 2010."

Illinois Department of Commerce and Economic Opportunity, 2010 Population, "Population Projections, Projections\_Illinois Details" and "Projections\_County\_Summary," [www.ildceo.net/dceo/Bureaus/Facts\\_Figures/Population\\_Projections/](http://www.ildceo.net/dceo/Bureaus/Facts_Figures/Population_Projections/)

"ABR State Summary - CY2009, 2009 Annual Hospital Bed Report," Illinois Department of Public Health, Health Systems Development

8. Criterion 1110.530.(c)(3) - Documentation that Centegra Hospital - Huntley will not lower the utilization of other providers

Within 24 months after project completion, Centegra Hospital - Huntley will meet the occupancy targets for the Medical-Surgical/Pediatric, Intensive Care, and Obstetric Categories of Service, as documented below and in the certification that is appended to this Attachment.

<b>Service</b>	<b>Occupancy Target per 77 Ill. Adm. Code 1100</b>	<b>2018 Patient Days (second full year of operation)</b>	<b>Number of Beds Justified at Occupancy Target</b>	<b>Proposed Authorized Beds</b>
Medical-Surgical Service	85% for hospitals with 100-199 M/S beds	33,827	109	100
Intensive Care	60%	2,850	13	8
Obstetric Service	75% for 11-25 beds	5,467	21	20

Centegra Hospital - Huntley will be located in Planning Area A-10. There are 3 existing providers of the Medical-Surgical, Intensive Care, and/or Obstetric Categories of Service in this Planning Area.

Centegra Hospital - McHenry  
Centegra Hospital - Woodstock  
Mercy Harvard Memorial Hospital, a Critical Access Hospital

Centegra Hospital - McHenry met the State's Occupancy Target for the Intensive Care Category of Service in 2009, but did not meet the State's Occupancy Target for the Medical-Surgical and Obstetric Categories of Service.

Centegra Hospital - Woodstock met the State's Occupancy Target for the Intensive Care Category of Service in 2009, but did not meet the State's Occupancy Target for the Medical-Surgical and Obstetric Categories of Service.

Mercy Harvard Memorial Hospital did not meet the State's Occupancy Target for either the Medical-Surgical or the Intensive Care Categories of Service in 2009.

The Market Assessment and Impact Study prepared by Deloitte Financial Advisory Services, LLP, which is found appended to this Attachment and identified as Appendix A, documents that Centegra Hospital - Huntley will conform with 77 Ill. Adm. Code 1110.530.c)3) because it "will not lower the utilization of other area providers below the occupancy standards specified in 77 Ill. Adm. Code 1100; and will not lower, to a further extent, the utilization of other area hospitals that are currently (during the latest 12-month period) operating below the occupancy standards."

The lack of impact on current utilization of existing providers is due to the following.

- There will be Bed Need in Planning Area A-10 (McHenry County) by 2018 for all the beds proposed for Centegra Hospital - Huntley (i.e., 100 Medical-Surgical beds, 8 Intensive Care beds, 20 Obstetric beds).
- Population growth and the aging of the population projected to occur by mid-2018 for both Planning Area A-10 (McHenry County) and for the Market Area identified for Centegra Hospital - Huntley will increase existing utilization among all hospitals in the area currently providing Medical-Surgical, Intensive Care, and Obstetric Categories of Service as well as provide utilization for Centegra Hospital - Huntley.
- Therefore, based on the population growth projections and aging of the population, the establishment of Centegra Hospital - Huntley will not significantly impact current utilization in existing area hospitals.

Pages 6 and 7 of the Market Assessment and Impact Study includes a discussion of the lack of impact of the establishment of Centegra Hospital - Huntley on current utilization of existing area hospitals, concluding that "all existing hospitals within the A-10 Planning Area which have Medical-Surgical, Intensive Care, or Obstetric Services will maintain or exceed their existing patient volume between now and FY18."

9. Criterion 1110.530.(e) - Staffing Availability

Relevant clinical and professional staffing needs for Centegra Hospital - Huntley were considered in the planning for this hospital. This planning considered the fact that licensure and Joint Commission (new name for JCAHO) or any accreditation requirements will be met.

Centegra Health System, as the owner of 2 existing general acute care hospitals in Planning Area A-10, both of which operate Medical-Surgical, Intensive Care, and Obstetric Categories of Service, is experienced in the planning for the staffing of a general acute care hospital in this area.

The current planning for Centegra Hospital - Huntley, which will not become operational until 5 years from now (at the end of 2015) is to employ 1,072 FTEs during its first full fiscal year of operation (FY17: July 1, 2016, through June 30, 2017) and to employ 1,167 FTEs during its second full fiscal year of operation (FY18: July 1, 2017, through June 30, 2018).

Because the opening of Centegra Hospital - Huntley is 5 years from now, this Attachment provides a narrative explanation of how the propped staffing will be met.

The proposed staffing for Centegra Hospital - Huntley will be achieved as described below.

Centegra Health System is the largest employer in McHenry County, and maintains a reputation as a great place to work. Centegra has been nationally recognized by Modern Healthcare for the past two years and AARP five consecutive years as an employer of choice with high employee satisfaction. On our last Associate Opinion Survey, 9 out of 10 Associates strongly agreed Centegra is a great place to work. Other national recognition includes Thomson Reuters 100 Top Hospitals: Health Systems Quality Efficiency Study, Lincoln, Healthgrades' Distinguished Hospital Award for Clinical Excellence, and three years in a row, named one of the nation's 100 Top Hospitals: Benchmarks for Success by Thomson Healthcare.

Centegra also takes pride in a 95.8% staff retention rate for fiscal year 2010 and an overall staff vacancy rate of 2.4% in comparison to the Chicagoland market

vacancy rate of 4%. The nursing vacancy rate is even more impressive at 1.1% in comparison to the Chicagoland market of 4%.

Centegra recruits Associates who will support the Health System's culture and model its values of passionate caring, genuine respect and a joyful spirit. Centegra is committed to meeting the needs of its community by hiring Associates who not only have strong technical skills, but also live Centegra Health System's values. Centegra's success in recruitment and retention is attributed to a great culture and a total rewards strategy which includes competitive salaries, special and unique benefits, work life balance, Associate recognition, and career development.

Centegra has been successful in attracting candidates through both the corporate website and Associate referral program. In the past 12 months, 7,506 people applied to join Centegra for 365 available positions. Centegra Health System is also proud to say 39% of new hires were referred to Centegra by current Associates.

Centegra's peer interviewing process provides both the team and candidates an opportunity to meet and interview one another. Centegra Health System's electronic applicant tracking system provides 24-hour access to all postings and allows for candidates to fill out online applications. A job agent feature notifies job seekers when positions of interest open.

To provide a continuous pipeline of health care workers to Centegra, the Health System has instituted a number of programs geared at addressing the key areas of demand in Nursing, Medical Imaging, Respiratory Therapy, Physical Therapy, Pharmacy, and others. One specific program is Centegra's nationally known Red Carpet Clinical Rotation. The Red Carpet Clinical Rotation Program is centered on the belief that clinical rotations serve three functions: 1) opportunity for students to hone and learn skills; 2) opportunity to sample the workplace culture and decide where they want to work; 3) critical to establish an effective learning environment. Centegra Health System serves hundreds of students from over 40 different colleges every year through this program.

In addition to the Red Carpet Clinical Rotations, some of the other programs serving its newly graduated nurses are Student Nurse Internships, Student Nurse Shadowing Program and a best practice New Graduate Orientation. The Student Nurse Internship Program provides a comprehensive, progressive learning experience specifically designed to enhance the student's confidence as a practitioner post graduation. Student Nurse Interns are nurtured with Centegra Health System's unique, multi-tiered program and varied opportunities to further advance clinical skills and develop expertise within a chosen specialty. The Student Nurse Shadowing Program was created last year in response to the decrease in nursing jobs available for new graduates and provides nursing

students the opportunity to experience Centegra Health System's work place culture. The student nurse is provided the opportunity to shadow with a nurse from a unit of his or her choice.

In addition to these programs, Centegra Health System has many other initiatives focused on the future of healthcare with the purpose of growing the pipeline of healthcare workers in our region. Some of these initiatives include: Annual Healthcare Career Fair for 8<sup>th</sup> grade students, Health Career Education Course offered on-site at Centegra to McHenry County College students, up front tuition reimbursement for Centegra Associates, College Scholarships offered by the Centegra Auxiliary, and healthcare career presentations offered at local high schools.

With the combination of Centegra Health System's efforts to create a pipeline of health care workers and the Health System's employer of choice designation, there are currently a substantial number of RN's interested in joining Centegra Health System. In a 7 month time frame from May 1, 2010 to November 30, 2010 there were 557 RN's who applied to work at Centegra.

In addition to the existing flow of applicants, Centegra Health System also anticipates sourcing both clinical and non-clinical candidates through a variety of local and national recruiting and advertising strategies that may include:

Professional association publications-printed and online such as: Nursing Spectrum, Advance, Advancedpracticejobs.com, AJN, AACN, AHIMA, APTA, OPTA and ASHA

General Recruiting Websites such as: CareerBuilder, Monster, Hotjobs, Illinois Diversity and NHCN Network

Local Newspapers such as: Northwest Herald, Chicago Tribune, Milwaukee Journal, Daily Herald and Rockford Register Star

Other recruitment venues include the following:

Participation in a multitude of job fairs;

Social Networking websites, including LinkedIn, Facebook, and Twitter;

Placement of feature articles in nursing publications and journals, focusing on the forthcoming opening of Centegra Hospital - Huntley and job opportunities available at this new facility in a rapidly growing part of the Chicago metropolitan area;

Preparation of direct mail brochures;

Development of targeted emails to professionals in selected specialties.

Centegra Health System will continue to use its current recruitment Incentives, which include an Associate referral program and sign-on bonuses.

Centegra Health System has a healthy mix of both clinical and non-clinical applicants who are interested in joining Centegra, many of whom are not currently employed. The Health System is confident of being able to fully staff Centegra Hospital - Huntley without creating a staffing burden for any of the existing health care facilities in the region.

10. Criterion 1110.530.(f) - Performance Requirements - Bed Capacity Minimum

Centegra Hospital - Huntley will meet the minimum bed capacity for a Medical-Surgical Category of Service within a Metropolitan Statistical Area (MSA) because it will have 100 Medical-Surgical beds.

Centegra Hospital - Huntley will meet the minimum bed capacity for a new Obstetric Unit within a MSA because it will have 20 Obstetric beds.

Centegra Hospital - Huntley will meet the minimum bed capacity for an Intensive Care Unit because it will have 8 Intensive Care beds.

11. Criterion 1110.530.(g) - Assurances

A signed and dated statement attesting to the applicant's understanding that, by the second year of operation after the project completion, the applicant will achieve and maintain the occupancy standards specified in 77 Ill. Adm. Code 1100 for the Medical-Surgical, Obstetric, and Intensive Care Categories of Service is found on Page 43 of this Attachment.

**By Email Transmission and Overnight Delivery**

December 20, 2010

Mr. Dale Galassie, Chair  
Illinois Health Facilities and Services Review Board  
525 West Jefferson Street, 2nd Floor  
Springfield, IL 62761

RE: Abandonment of Project No. 08-002, Centegra Memorial Medical Center d/b/a Centegra Hospital – Woodstock

Dear Chairman Galassie:

This letter is to provide notice to the Illinois Health Facilities and Services Review Board (“Review Board”) that the applicant Centegra Health System (“Centegra”) is, for the reasons stated below, abandoning the permit issued in Project No. 08-002, Centegra Memorial Medical Center d/b/a Centegra Hospital – Woodstock. The project was a major modernization that included an increase of 14 Medical/Surgical beds and 6 Obstetric beds. With the abandonment of the project, these beds may be removed from the Inventory of existing beds for Planning Area A-10. A copy of the Permit Letter for Project No. 08-002 is attached.

Centegra decided to abandon this project after a reassessment of its strategic master facility plan. Since the issuance of the permit, we have kept the Review Board apprised of the status of our reassessment. In our initial Annual Progress Report dated July 31, 2009, we advised that we were considering the need to request an extension of the time to obligate the project. In November 2009, following the tumultuous year caused by the global financial market crises and economic downturn, we submitted a Request for Extension of the Obligation Period for Project No. 08-002. That request, dated November 11, 2009, noted that the hospital community as a whole was finding construction loans difficult to obtain even for A-rated organizations. In addition, as with most other hospital providers at the time, Centegra re-evaluated its major capital expenditure program during that unpredictable and volatile economic period. We advised the Review Board that we had begun to reassess our strategic master facility plan and felt this was necessary in light of changing market conditions, the uncertain financial situation, and in anticipation of health care reform. We further advised the Review Board that, in the event there was an alteration in the strategic master facility plan, Centegra would petition the Review Board for an alteration to Project No. 08-002.

In our most recent Annual Progress Report for this project, which was submitted on August 4, 2010, we advised the Review Board that we were continuing to evaluate our options presented in connection with the reassessment of our strategic master facility plan and would be making the decision whether to progress with the current plan, to petition the Review Board for an alteration to Project No. 08-002, or take other appropriate action.

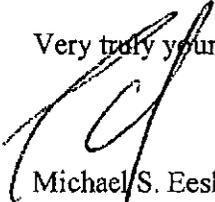
With the revitalization of the financial markets and increasingly favorable expectations for the economy, we also observed the growing need for inpatient services in our area, especially in the southern portion of McHenry County which has no existing inpatient hospital facilities. As a result of the reassessment of the strategic master facility plan, Centegra determined that a more judicious use of resources to meet the long term needs of the Planning Area can be best achieved by the establishment of a new hospital in the southern portion of McHenry County. Consequently, Centegra has decided to abandon Project No. 08-002 and to file an application for permit with the Review Board for the establishment of a new hospital in Huntley.

As stated in our 2010 Annual Progress Report, the total amount of project costs expended on Project 08-002 is \$1,649,776 which consisted primarily of preplanning costs, architectural/engineering fees and other consulting fees. This amount is substantially below the capital expenditure minimum threshold and would not have independently required a permit. A significant amount of the capital costs and work expended on Project No. 08-002 were useful and translated to the proposed hospital project in Huntley.

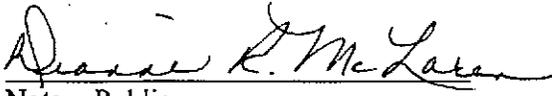
We had a technical assistance meeting with Mr. Michael Constantino on December 14, 2010 to request the procedure to appropriately abandon Project 08-002 and he advised the submission of a letter. Please accept this letter as both notice of the abandonment of Project No. 08-002 and as the applicant's documentation of the technical assistance meeting with Mr. Constantino. Present at the meeting on behalf of Centegra were myself, Mr. Aaron Shepley, Senior Vice President, Ms. Susan Milford, Senior Vice President of Marketing, Strategic Planning & Wellness, Ms. Hadley Streng, Director of Planning and Business Development, and Ms. Andrea Rozran, Diversified Health Resources, our CON consultant. We thank Mr. Constantino for his technical assistance on this project.

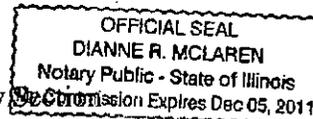
To conclude, the applicant Centegra Health System is abandoning Project No. 08-002, Centegra Memorial Medical Center d/b/a Centegra Hospital – Woodstock. The 14 medical/surgical beds and 6 Obstetric beds associated with the project may be removed from the Inventory for Planning Area A-10. Thank you for your attention to this matter.

Very truly yours,

  
Michael S. Eesley  
Chief Executive Officer  
Centegra Health System

SUBSCRIBED and SWORN to before me  
this 20<sup>th</sup> day of December, 2010.

  
Dianne R. McLaren  
Notary Public



cc: Mr. Michael Constantino, Supervisor, Project Review  
Ms. Andrea Rozran, Diversified Health Resources



## CENTEGRA HOSPITAL - HUNTLEY MARKET AREA PROJECTED POPULATION BY ZIP CODE

Zip Code	Town	Mid-2018		County			
		Population	McHenry	Kane	Lake	DeKalb	Cook
60014	Crystal Lake	56,070	56,070				
60102	Algonquin	40,589	37,339	3,250			
60110	Carpentersville	46,801		46,801			
60118	Dundee	21,492		19,000			2,492
60136	Gilberts	7,878		7,878			
60140	Hampshire	16,909		15,200		1,709	
60142	Huntley	30,638	17,638	13,000			
60152	Marengo	14,706	14,706				
60156	Lake in the Hills	34,760	34,760				
60180	Union	1,583	1,583				
<b>Total PSA</b>		<b>271,426</b>	<b>162,096</b>	<b>105,129</b>	<b>0</b>	<b>1,709</b>	<b>2,492</b>
<b>% of Population</b>			<b>59.72%</b>	<b>38.73%</b>	<b>0.00%</b>	<b>0.63%</b>	<b>0.92%</b>
60010	Barrington	45,697	1,800	750	18,764		24,383
60012	Crystal Lake	12,314	12,314				
60013	Cary	34,546	29,546		5,000		
60021	Fox River Grove	6,637	3,437		3,200		
60098	Woodstock	38,033	38,033				
60039	Crystal Lake	0					
<b>TOTAL SSA</b>		<b>137,227</b>	<b>85,130</b>	<b>750</b>	<b>26,964</b>	<b>0</b>	<b>24,383</b>
<b>% of Population</b>			<b>62.04%</b>	<b>0.55%</b>	<b>19.65%</b>	<b>0.00%</b>	<b>17.77%</b>
<b>TOTAL</b>		<b>408,653</b>	<b>247,226</b>	<b>105,879</b>	<b>26,964</b>	<b>1,709</b>	<b>26,875</b>
<b>% of Population</b>			<b>60.50%</b>	<b>25.91%</b>	<b>6.60%</b>	<b>0.42%</b>	<b>6.58%</b>

Source: Analysis prepared by Deloitte Financial Advisory Services, LLP, using Claritas via Intellimed for 2010 to 2015 projections, with estimates of the mid-2018 population developed using the compound annual growth rate derived from the 2010-2015 study.

Zip codes located in multiple counties were allocated based on an estimate of land space in each county. 60039 is a zip code for post office boxes; therefore, no population numbers exist.

**CENTEGRA HOSPITAL - McHENRY**  
**INPATIENT ORIGIN JULY 1, 2009 - JUNE 30, 2010**  
**ALL DISCHARGES EXCLUDING NEWBORNS AND NEONATES**

<u>Zip Code</u>	<u>Community</u>	<u>Discharges</u>	<u>% of Total Discharges</u>	<u>% of Cumulative Discharges</u>
60050	McHenry	2,640	24.7%	24.7%
60051	McHenry	1,437	13.5%	38.2%
60014	Crystal Lake	1,160	10.9%	49.1%
60097	Wonder Lake	659	6.2%	55.2%
60020	Fox Lake	513	4.8%	60.0%
60098	Woodstock	465	4.4%	64.4%
60081	Spring Grove	430	4.0%	68.4%
60012	Crystal Lake	347	3.3%	71.7%
60041	Ingleside, Volo	285	2.7%	74.3%
60013	Cary	262	2.5%	76.8%
60073	Round Lake	218	2.0%	78.8%
60071	Richmond	217	2.0%	80.9%
60002	Antioch	188	1.8%	82.6%
60156	Lake in the Hills	183	1.7%	84.4%
60042	Island Lake	139	1.3%	85.7%
60033	Harvard	123	1.2%	86.8%
60102	Algonquin	122	1.1%	88.0%
60142	Huntley	105	1.0%	88.9%
TOTAL, THESE ZIP CODES		9,493		88.9%
Zip Codes under 1% of Discharges		1,181	11.1%	
TOTAL DISCHARGES		10,674		100.00%

Source: COMPdata via Intellimed

**CENTEGRA HOSPITAL - WOODSTOCK**  
**INPATIENT ORIGIN JULY 1, 2009 - JUNE 30, 2010**  
**ALL DISCHARGES EXCLUDING NEWBORNS AND NEONATES**

<u>Zip Code</u>	<u>Community</u>	<u>Discharges</u>	<u>% of Total Discharges</u>	<u>% of Cumulative Discharges</u>
60098	Woodstock	2,216	28.5%	28.5%
60014	Crystal Lake	1,286	16.5%	45.0%
60152	Marengo	608	7.8%	52.8%
60142	Huntley	567	7.3%	60.1%
60033	Harvard	558	7.2%	67.3%
60050	McHenry	325	4.2%	71.5%
60097	Wonder Lake	298	3.8%	75.3%
60156	Lake in the Hills	288	3.7%	79.0%
60051	McHenry	196	2.5%	81.5%
60012	Crystal Lake	153	2.0%	83.5%
60013	Cary	117	1.5%	85.0%
60034	Hebron	106	1.4%	86.4%
60102	Algonquin	100	1.3%	87.7%
TOTAL, THESE ZIP CODES		6,818		87.7%
Zip Codes under 1% of Discharges		959	12.3%	
TOTAL DISCHARGES		7,777		100.00%

Source: COMPdata via Intellimed

**MERCY HARVARD MEMORIAL HOSPITAL**  
**INPATIENT ORIGIN JULY 1, 2009 - JUNE 30, 2010**  
**ALL DISCHARGES EXCLUDING NEWBORNS AND NEONATES**

<u>Zip Code</u>	<u>Community</u>	<u>Discharges</u>	<u>% of Total Discharges</u>	<u>% of Cumulative Discharges</u>
60033	Harvard	331	54.98%	54.98%
60098	Woodstock	33	5.48%	60.46%
61012	Capron	29	4.82%	65.28%
61109	Rockford	16	2.66%	68.59%
53585	Sharon, Wisconsin	15	2.49%	71.08%
60034	Hebron	14	2.32%	73.40%
53184	Walworth, Wisconsin	14	2.32%	75.72%
60152	Marengo	12	2.00	77.72%
53115	Delavan, Wisconsin	12	2.00%	79.72%
TOTAL, THESE ZIP CODES		476		79.07%
Zip Codes under 1% of Discharges		126	20.93%	
TOTAL DISCHARGES		602		100.00%

Source: COMPdata via Intellimed

**CENTEGRA HOSPITAL - HUNTLEY  
MARKET AREA PROJECTED POPULATION BY ZIP CODE**

Zip Code	Town	2010	2015	2017	Mid-2018 Population	2018
60014	Crystal Lake	51,100	54,360	55,722	56,070	56,415
60102	Algonquin	34,875	38,586	40,179	40,589	41,000
60110	Carpentersville	40,768	44,696	46,371	46,801	47,232
60118	Dundee	18,930	20,601	21,310	21,492	21,674
60136	Gilberts	6,670	7,453	7,791	7,878	7,966
60140	Hampshire	14,226	15,962	16,714	16,909	17,104
60142	Huntley	25,824	28,940	30,289	30,638	30,987
60152	Marengo	13,072	14,140	14,591	14,706	14,822
60156	Lake in the Hills	30,066	33,118	34,424	34,760	35,096
60180	Union	1,485	1,550	1,577	1,583	1,590
<b>Total PSA</b>		<b>237,016</b>	<b>259,406</b>	<b>268,968</b>	<b>271,426</b>	<b>273,886</b>
<b>% of 2010 Population</b>			<b>109.45%</b>		<b>114.52%</b>	<b>115.56%</b>
60010	Barrington	44,088	45,154	45,588	45,697	45,806
60012	Crystal Lake	11,265	11,954	12,241	12,314	12,387
60013	Cary	30,084	32,989	34,228	34,546	34,865
60021	Fox River Grove	6,274	6,514	6,613	6,637	6,662
60098	Woodstock	33,657	36,514	37,724	38,033	38,343
60039	Crystal Lake	0	0	0	0	0
<b>TOTAL SSA</b>		<b>125,368</b>	<b>133,125</b>	<b>136,394</b>	<b>137,227</b>	<b>138,063</b>
<b>% of 2010 Population</b>			<b>106.19%</b>		<b>109.46%</b>	<b>110.13%</b>
<b>TOTAL</b>		<b>362,384</b>	<b>392,531</b>	<b>405,362</b>	<b>408,653</b>	<b>411,949</b>
<b>% of 2010 Population</b>			<b>108.32%</b>		<b>112.77%</b>	<b>113.68%</b>

Source: Analysis prepared by Deloitte Financial Advisory Services, LLP, using Claritas via Intellimed for 2010 to 2015 projections, with estimates of the mid-2018 population developed using the compound annual growth rate derived from 2010-2015 study.

60039 is a zip code for post office boxes; therefore, no population numbers exist.

**CAGR 2010 - 2015**

Zip	Town	2010 Population	2015 Population	Ages 0 - 17 (10-15)	Ages 18 - 34 (10-15)	Ages 35 - 44 (10-15)	Ages 45 - 64 (10-15)	Ages 65+ (10-15)	Overall CAGR
60014	Crystal Lake	51,100	54,360	0.3%	1.5%	-1.6%	2.4%	3.8%	1.2%
60102	Algonquin	34,875	38,586	1.5%	3.4%	-3.2%	3.5%	6.0%	2.0%
60110	Carpentersville	44,088	45,154	-0.5%	3.6%	-3.6%	-1.1%	3.8%	0.5%
60118	Dundee	18,930	20,601	1.6%	0.9%	-0.2%	2.1%	5.1%	1.7%
60136	Gilberts	6,670	7,453	1.0%	2.3%	2.7%	1.3%	7.3%	2.2%
60140	Hampshire	14,226	15,962	2.1%	1.7%	1.6%	2.2%	5.1%	2.3%
60142	Huntley	25,824	28,940	1.9%	1.0%	2.7%	2.2%	4.6%	2.3%
60152	Marengo	13,072	14,140	0.7%	1.3%	1.7%	1.6%	3.4%	1.6%
60156	Lake in the Hills	30,066	33,118	1.5%	0.6%	-0.7%	4.9%	5.8%	2.0%
60180	Union	1,485	1,550	-0.4%	1.0%	1.7%	0.5%	2.5%	0.9%

Data Source: Census projections: Claritas via Intellimed, 2010  
CAGR is defined as compound annual growth rate

2010-2015 POPULATION PROJECTIONS FOR MARKET AREA													
A	B	C	D	E	F	G	H	I	J	K	L	M	N
County	Zip Code	Male Cur	Female Cur	Total Cur	Male 5 Yr	Female 5 Yr	Total 5 Yr	Male Change	Female Change	Total Change	% Male Change	% Female Change	% Total Change
5 PRIMARY SERVICE AREA:													
6	McHenry County, IL 60034 Crystal Lake	25513	25587	51100	27110	27250	54360	1597	1663	3260	6.260%	6.499%	6.380%
7	McHenry County, IL 60102 Algonquin	17385	17490	34875	19703	19383	38586	1818	1893	3711	10.457%	10.823%	10.641%
8	Kane County, IL 60110 Carpentersville	20852	19916	40768	22802	21894	44696	1950	1978	3928	9.352%	9.932%	9.635%
9	Kane County, IL 60118 Dundee	9442	9488	18930	10260	10341	20601	818	853	1671	8.663%	8.900%	8.827%
10	Kane County, IL 60136 Gilberts	3366	3304	6670	3748	3705	7453	382	401	783	11.349%	12.137%	11.739%
11	Kane County, IL 60140 Hampshire	7149	7077	14226	8008	7954	15962	859	877	1736	12.016%	12.392%	12.203%
12	McHenry County, IL 60142 Huntley	12722	13102	25824	14276	14664	28940	1554	1562	3116	12.215%	11.922%	12.066%
13	McHenry County, IL 60152 Marengo	6568	6504	13072	7094	7046	14140	526	542	1068	8.009%	8.333%	8.170%
14	McHenry County, IL 60156 Lake in the Hills	15030	15036	30066	16554	16564	33118	1524	1528	3052	10.140%	10.162%	10.151%
15	McHenry County, IL 60180 Union	738	747	1485	767	783	1550	29	36	65	3.930%	4.819%	4.377%
17 SECONDARY SERVICE AREA:													
18	Lake County, IL 60010 Barrington	21620	22468	44088	22088	23066	45154	468	588	1066	2.165%	2.662%	2.418%
19	McHenry County, IL 60012 Crystal Lake	5667	5598	11265	5999	5955	11954	332	357	689	5.858%	6.377%	6.116%
20	McHenry County, IL 60013 Cary	15054	15030	30084	16487	16502	32989	1433	1472	2905	9.519%	9.794%	9.656%
21	McHenry County, IL 60021 Fox River Grove	3203	3071	6274	3309	3205	6514	106	134	240	3.309%	4.363%	3.825%
22	McHenry County, IL 60098 Woodstock	17021	16636	33657	18438	18076	36514	1417	1440	2857	8.325%	8.656%	8.489%
23													
24	Source:												
25	INTELLIMED Demographic Profile System (I)												
26	Version IC 6.2.1.310, Copyright © INTELLIMED International, Corp., 2010, All Rights Reserved.												
27	9/27/2010												
28													

**BED NEED DETERMINATION FOR PLANNING AREA A-10 (McHENRY COUNTY)  
FOR THE MEDICAL-SURGICAL AND PEDIATRICS CATEGORIES OF SERVICE**

May 28, 2008, Revised April, 2010

Issued by Illinois Health Facilities Planning Board and  
Illinois Department of Public Health

	<u>2005 Population Estimate</u>	<u>Use Rates</u>	<u>2015 Population Projection</u>	<u>Projected Days</u>
0-14 Years Old	75,990	0.0203	80,770	1,638
15-44 Years Old	133,560	0.0661	157,340	10,392
45-64 Years Old	74,070	0.1872	99,280	18,584
65-74 Years Old	12,470	0.6885	25,340	17,445
75-up Years Old	<u>10,590</u>	1.7648	<u>14,580</u>	<u>25,731</u>
Total Population	306,680		377,310	73,790
Out-Migration:	11,091			
In-Migration:	2,215			
Net Migration:	8,876			
Average Length of Stay:	4.757			
Migration Days:	42,223			
Adjustment Factor:	0.50			
Migration Adjustment:	21,112			
Total Projected Days (see above):			73,790	
+ Migration Adjustment:			<u>21,112</u>	
Adjusted Days			94,902	
Adjusted Days			94,902	
÷ Days in Year (2015)			<u>÷ 365</u>	
= Adjusted Average Daily Census			260	
Adjusted Average Daily Census			260	
+ Occupancy Target <sup>1</sup>			<u>+ 90%</u>	
Calculated (Adjusted) Beds Needed 2015			289	
Calculated (Adjusted) Beds Needed 2015			289	
- Existing Beds as of December 17, 2010			<u>-220</u>	
Beds Needed as of December 17, 2010			69	
Calculated (Adjusted) Beds Needed 2015				289
- Existing Beds as of the abandonment of Project #08-002 (Dec. 20, 2010)				<u>-206</u>
Beds Needed after the abandonment of Project #08-002 on Dec. 20, 2010				83

<sup>1</sup>The Need Determinations formula states that, if there are 200 or more beds in the Planning Area, the Occupancy Target is 90%

**BED NEED DETERMINATION FOR PLANNING AREA A-10 (McHENRY COUNTY)  
FOR THE MEDICAL-SURGICAL AND PEDIATRICS CATEGORIES OF SERVICE  
FOR CENTEGRA HOSPITAL - HUNTLEY'S SECOND FULL YEAR OF OPERATION**

Based Upon Determination Issued by Illinois Health Facilities Planning Board and  
Illinois Department of Public Health, May 28, 2008, Revised April, 2010

	<u>2005 Population Estimate</u>	<u>Use Rates</u>	<u>2015 Population Projection</u>	<u>Projected Days</u>
0-14 Years Old	75,990	0.0203	80,770	1,638
15-44 Years Old	133,560	0.0661	157,340	10,392
45-64 Years Old	74,070	0.1872	99,280	18,584
65-74 Years Old	12,470	0.6885	25,340	17,445
75-up Years Old	<u>10,590</u>	1.7648	<u>14,580</u>	<u>25,731</u>
Total Population	306,680		377,310	73,790

	<u>2010 Population Estimate</u>	<u>Use Rates<sup>2</sup></u>	<u>FY18 Population Projection<sup>3</sup></u>	<u>Projected Days</u>
0-14 Years Old	76,444	0.0203	83,783	1,701
15-44 Years Old	142,144	0.0661	160,365	10,600
45-64 Years Old	88,034	0.1872	103,203	19,320
65-74 Years Old	18,314	0.6885	28,603	19,693
75-up Years Old	<u>12,098</u>	1.7648	<u>16,669</u>	<u>29,417</u>
Total Population	337,034		392,623	80,731

Out-Migration: 11,091  
In-Migration: 2,215  
Net Migration: 8,876

Average Length of Stay: 4.757

Migration Days: 42,223  
Adjustment Factor: 0.50  
Migration Adjustment: 21,112

Total Projected Days (see above): 80,731  
+ Migration Adjustment: 21,112  
Adjusted Days 101,843

Adjusted Days 101,843  
+ Days in Year (2018) + 365  
= Adjusted Average Daily Census 279

Calculated (Adjusted) Average Daily Census	279
÷ Occupancy Target <sup>1</sup>	<u>+ 90%</u>
Calculated (Adjusted) Beds Needed FY18	310
Existing Beds as of December 17, 2010	220
- 14 Medical-Surgical Beds Abandoned as a result of Abandoning Project #08-002 on December 20, 2010	<u>- 14</u>
Existing Medical-Surgical Beds in Planning Area A-10 as of the abandonment of Project #08-002	206
Calculated (Adjusted) Beds Needed FY18	310
- Existing Beds as of the abandonment of Project #08-002 (Dec. 20, 2010)	<u>- 206</u>
Beds Needed after the abandonment of Project #08-002 on Dec. 20, 2010	104

<sup>1</sup>The Need Determinations formula states that, if there are 200 or more beds in the Planning Area, the Occupancy Target is 90%

<sup>2</sup>This calculation of Bed Need uses the same use rates as used by the Illinois Health Facilities Planning Board and IDPH in their May 28, 2008, Bed Need Determination, which was revised April, 2010

<sup>3</sup>The difference between the 2015 Population Projections and 2020 Projections was divided in half to secure the Population Projection for midway between 2015 and 2020. Centegra Hospital - Huntley's second full fiscal year of operation will be its FY18, which is July 1, 2017 - June 30, 2018.

Note: Migration Figures and Adjustments used were the same as those used in the May 28, 2008, and April, 2010, Bed Need Determinations

Source of 2005 Population, Population Projections for 2010, 2015, 2020:  
Illinois Department of Commerce and Economic Opportunity, "Population Projections,"  
[www.ildceo.net/dceo/Bureaus/Facts\\_Figures/Population\\_Projections/](http://www.ildceo.net/dceo/Bureaus/Facts_Figures/Population_Projections/)



U.S. Department of Health and Human Services  
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### Find Shortage Areas: MUA/P by State and County

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- [Find Shortage Areas](#)
- [HPSA & MUA/P by Address](#)
- [HPSA by State & County](#)
- [HPSA Eligible for the Medicare Physician Bonus Payment](#)

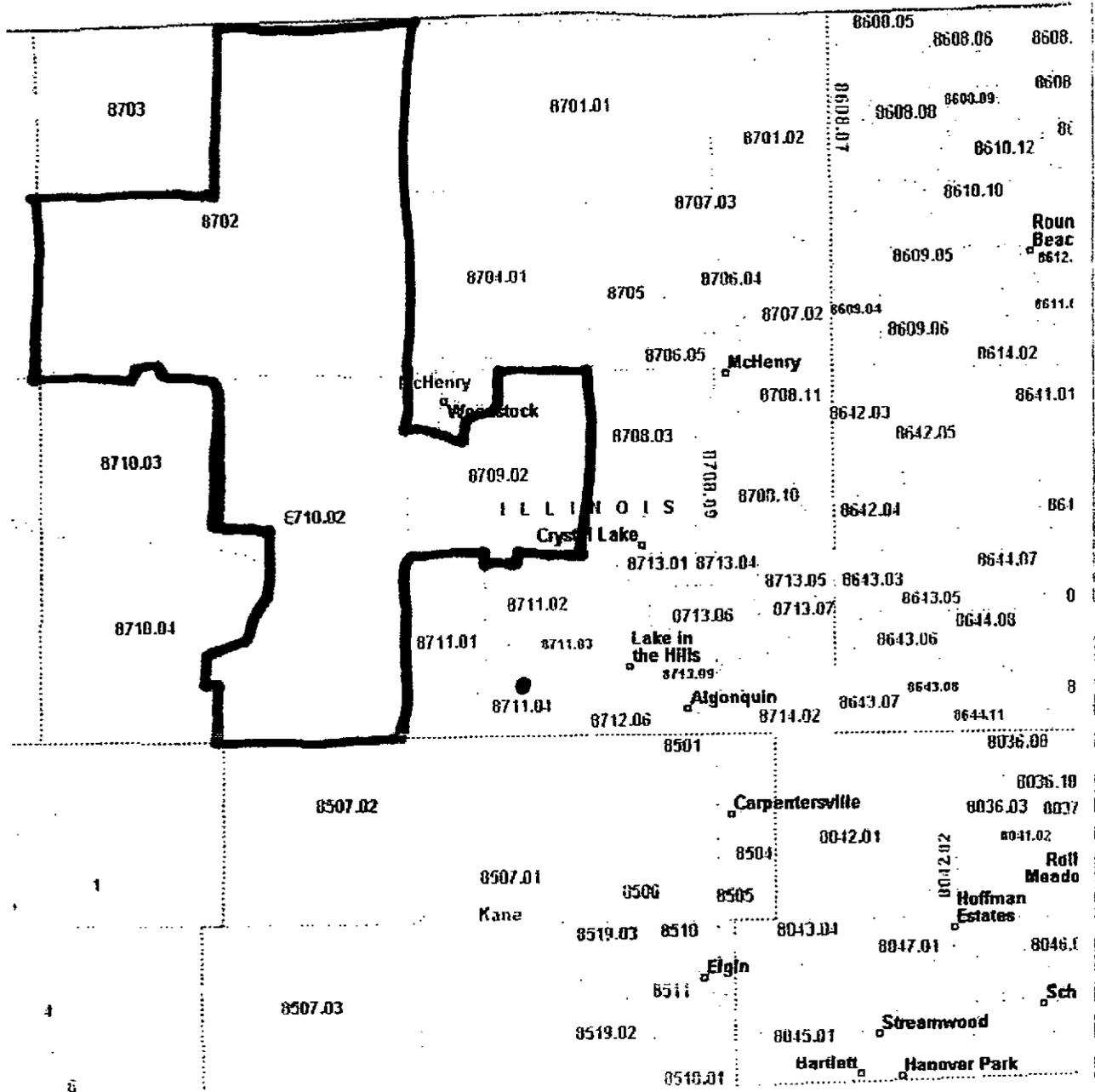
**Criteria:**  
 State: Illinois  
 County: McHenry County  
 ID #: All

Results: 4 records found.

Name	ID#	Type	Score	Designation Date	Update Date
McHenry County					
Pop Pop - Woodstock	07301	GOV MLP	0.00	2003/02/22	
CT 6702.00					
CT 6709.02					
CT 6710.02					

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# Census Tract Map – McHenry County Medically Underserved Population



Map created using Microsoft MapPoint, demographics by Census Tract

= Medically Underserved Area/Population <http://muafind.hrsa.gov/index.aspx>

Proposed Site for Centegra Hospital - Huntley



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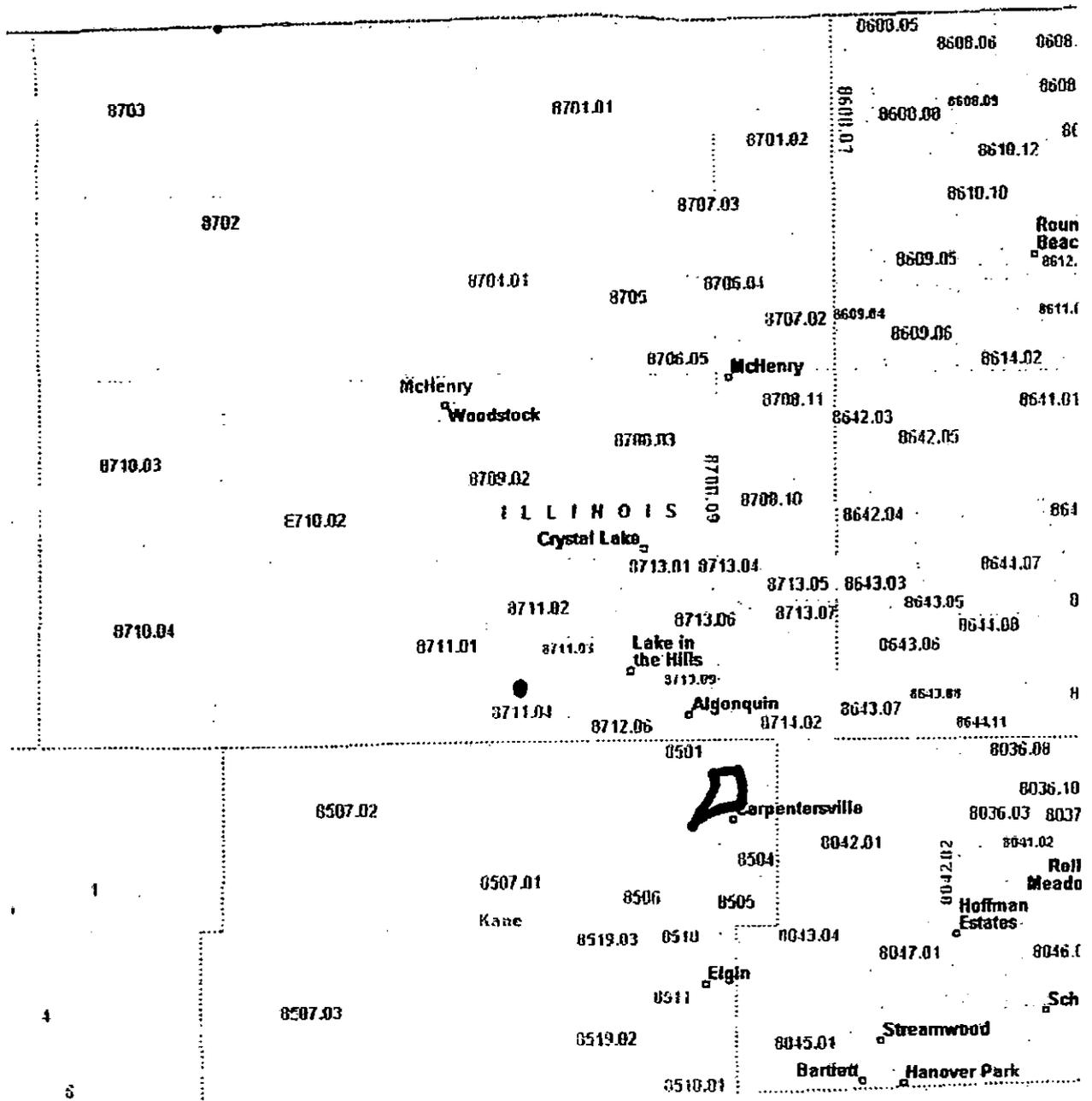
### Find Shortage Areas: MUA/P by State and County

- [Shortage Designation Home](#)
- [Find Shortage Areas](#)
- [HPSA & MUA/P by Address](#)
- [HPSA by State & County](#)
- [HPSA Eligible for the Medicare Physician Bonus Payment](#)

<b>Criteria:</b>						
State: Illinois						
County: Kane County						
ID #: All						
<b>Results: 15 records found.</b>						
Name	ID#	Type	Score	Designation Date	Update Date	
<b>Kane County</b>						
Inner City Aurora Service Area	00633	MUA	58.40	1994/04/04	2002/04/11	
CT 8528.04						
CT 8532.00						
CT 8533.00						
CT 8534.00						
CT 8535.00						
CT 8536.00						
CT 8537.00						
CT 8538.00						
CT 8541.00						
CT 8542.00						
Kane Service Area	00605	MUA	54.30	1994/05/11		
CT 8512.00						
Central Carpentersville Service Area	00186	MUA	59.30	2001/01/30		
CT 8503.01						

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# Census Tract Map – Northern Kane County Medically Underserved Population



Map created using Microsoft MapPoint, demographics by Census Tract

 = Medically Underserved Area/Population <http://muafind.hrsa.gov/index.aspx>

• Proposed Site for Centegra Hospital - Huntley



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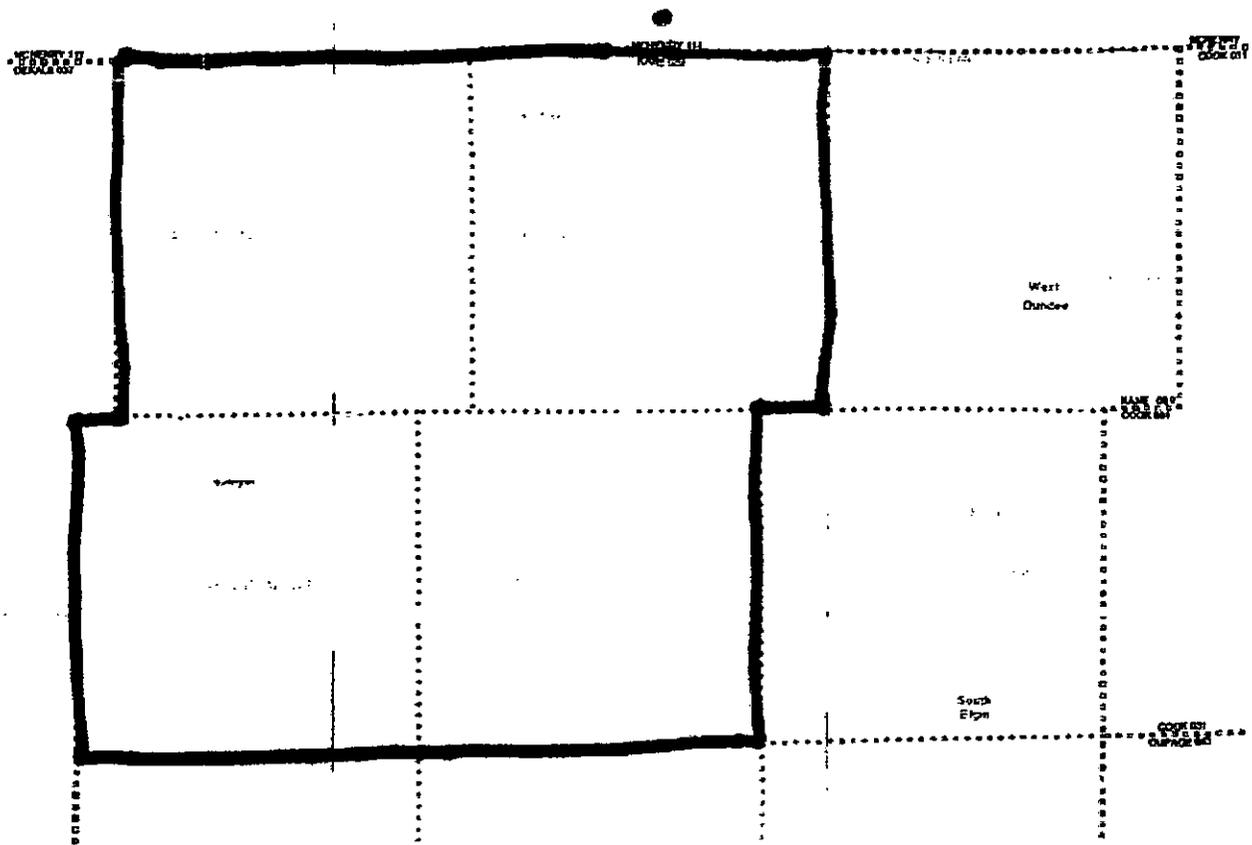
## Find Shortage Areas: HPSA by State & County

- Shortage Designation Home
- Find Shortage Areas
- HPSA & MUA/P by Address
- HPSA Eligible for the Medicare Physician Bonus Payment
- MUA/P by State & County

<b>Criteria:</b>		Discipline: Primary Medical Care			
State: Illinois		Metro: All			
County: Kane County		Status: Designated			
Date of Last Update: All Dates		Type: All			
HPSA Score (lower limit): 0					
Results: 17 records found. (Satellite sites of Comprehensive Health Centers automatically assume the HPSA score of the affiliated grantee. They are not listed separately.)					
HPSA Name	ID	Type	FTE	# Short	Score
<b>089 - Kane County</b>					
Greater Elgin Family Care Center	117999175P	Comprehensive Health Center	1		5
Milking Harze Association of Fox Valley	117999178K	Comprehensive Health Center			17
Low Income - Aurora	117999178P	Population Group	6	6	16
Aurora Township		Minor Civil Division			
Low Income - Elgin	117999178W	Population Group	2	3	12
C.T. 8508.00		Census Tract			
C.T. 8509.00		Census Tract			
C.T. 8512.00		Census Tract			
C.T. 8513.00		Census Tract			
C.T. 8514.00		Census Tract			
C.T. 8515.00		Census Tract			
C.T. 8516.00		Census Tract			
Hampshire Service Area	117999178R	Geographical Area	3	2	10
Burlington Township		Minor Civil Division			
Hampshire Township		Minor Civil Division			
Plato Township		Minor Civil Division			
Rutland Township		Minor Civil Division			

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# Health Professional Shortage Area - Township Map of Northern Kane County



iMap [http://www2.census.gov/plmap/pl\\_tr/st17\\_illinois/c17089\\_Kane/](http://www2.census.gov/plmap/pl_tr/st17_illinois/c17089_Kane/)



= Health Professional Shortage Area <http://hpsafind.hrsa.gov/HPSASearch.aspx>

- Proposed Site for Centegra Hospital - Huntley

**NET OUT-MIGRATION**  
**Medical-Surgical/ Pediatrics Categories of Service**  
**Planning Areas A-01 through A-14**

Planning Area	Total Med-Surg/Peds Patient Days 2005	Net Out-Migration Days*	Net Out-Migration as Percentage of Total Patient Days
A-010	52,852	42,223	80%
A-013	148,212	99,840	67%**
A-011	77,392	36,995	48%
A-003	376,796	86,753	23%
A-009	194,786	21,554	11%
A-008	183,554	16,202	9%
A-004	601,954	32,505	5%
A-005	288,430	-6,460	-2%
A-014	56,866	-1,803	-3%
A-006	254,345	-15,403	-6%
A-012	82,166	-9,695	-12%
A-001	581,324	-109,187	-19%
A-007	303,579	-62,250	-21%
A-002	451,921	-165,896	-37%

\*Net Migration times 4.757 Average Length of Stay as per IHFSRB/IDPH Inventory

\*\*Does not include impact of new Adventist Bolingbrook Hospital on Out-Migration

Source: IHFSRB/IDPH Inventory of Health Care Facilities and Services  
and Need Determinations (May 28, 2008)

**CON OCCUPANCY RATES**  
**Medical-Surgical/Pediatric Beds: All Planning Areas**

PLANNING AREA	CON OCCUPANCY CY2009
A-005	81.9%
<b>A-010</b>	<b>77.6%*</b>
A-007	74.5%
A-002	73.2%
F-006	68.4%
A-013	63.2%
D-001	61.8%
A-008	61.0%
A-009	60.8%
A-011	60.8%
A-012	60.6%
B-004	60.5%
C-001	60.1%
A-001	59.2%
F-002	57.9%
A-004	56.9%
E-001	55.6%
D-005	55.2%
D-002	54.9%
A-003	54.6%
B-003	54.5%
B-001	54.4%
A-006	52.8%
A-014	51.8%
F-007	49.2%
F-004	46.2%
E-005	45.6%
C-003	45.4%
C-005	44.6%
F-001	41.8%
B-002	39.7%
D-003	39.4%
F-003	39.4%
F-005	37.9%
C-002	37.8%
C-004	37.0%
D-004	35.3%
E-004	35.2%
E-002	26.8%
E-003	22.9%

\*CON Occupancy adjusted up from 72.7% after factoring in reduction of 14 M/S beds from A-10 due to Abandonment of Project #08-002

**METHODOLOGY FOR CALCULATING CON OCCUPANCY FOR PLANNING AREA**

**A. Calculation from IDPH Hospital Data Summary by Planning Area A-10**

	<b>Authorized CON Beds 12/31/2009</b>	<b>Inpatient Days</b>	<b>Observation Days</b>	<b>Total Patient Days</b>	<b>CON Occupancy CY2009</b>
<b>Medical-Surgical</b>	<b>220</b>	<b>53,214</b>	<b>5,136</b>	<b>58,350</b>	<b>72.7%</b>

**Note: CON Occupancy is calculated by dividing Total Days  
by the product of 365 days multiplied by Authorized CON Beds**

**B. CON Occupancy adjusted by reduction of 14 Medical/Surgical beds  
due to abandonment of Project # 08-002**

	<b>Authorized CON Beds after Abandonment of Project 08-002</b>	<b>Inpatient Days</b>	<b>Observation Days</b>	<b>Total Patient Days</b>	<b>CON Occupancy</b>
<b>Medical-Surgical</b>	<b>206</b>	<b>53,214</b>	<b>5,136</b>	<b>58,350</b>	<b>77.6%</b>

December 1, 2010

Mr. Michael Constantino  
Project Review Supervisor  
Illinois Health Facilities and Services Review Board  
525 W. Jefferson  
Second Floor  
Springfield, Illinois 62702

Dear Mr. Constantino:

I am an applicant representative of Centegra Health System who is signing the CON application to establish a hospital in Huntley, IL.

Centegra Hospital – Huntley will include the Medical/Surgical, Obstetric, and Intensive Care Categories of Service.

In accordance with 77. Ill. Adm. Code 1110.520.c)2)A), 1110.530.c)2), and 540.c) I hereby attest to the understanding of the co-applicants for this project that, by the second year of operation after this project is completed, Centegra Hospital – Huntley will achieve and maintain the occupancy standards specified in 77 Ill. Adm. Code 1100 for the Medical/Surgical, Obstetric, and Intensive Care Categories of Service.

The occupancy standard for adding beds to the Medical/Surgery Category of Service in a hospital with 100 – 199 Medical/Surgical beds is 85% occupancy of the authorized beds on an annual basis.

The occupancy standard for an Obstetric Category of Service in a hospital with 11 – 25 Obstetric beds is 75% occupancy of the authorized beds on an annual basis.

The occupancy standard for a hospital's Intensive Care Category of Service is 60% occupancy of the authorized beds on an annual basis.

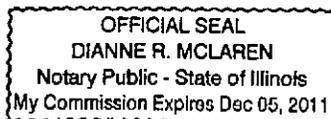
Signed and dated as of December 1, 2010:

Centegra Health System  
Illinois Corporation

SUBSCRIBED and SWORN to before me  
this 1<sup>st</sup> day of December, 2010.

By:   
Its: CEO

  
Notary Public



**APPENDIX A**

**MARKET ASSESSMENT AND IMPACT STUDY  
OF CENTEGRA HOSPITAL - HUNTLEY**

**Prepared by Deloitte Financial Advisory Services, LLP  
December 19, 2010**



Deloitte Financial Advisory  
Services LLP  
111 S. Wacker Drive  
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USA

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Fax: +1 312 486 1486  
www.deloitte.com

December 19, 2010

Aaron T. Shepley  
General Counsel, Senior Vice President Administrative Services  
Centegra Health System  
385 Millennium Drive  
Crystal Lake, IL 60012

Re: **Market Assessment and Impact Study of Centegra Hospital - Huntley**

Dear Mr. Shepley:

At your request, we have performed a market assessment and impact study of the planned Centegra Hospital - Huntley to be built in Huntley, Illinois. This letter summarizes the background, purpose, approach and methodologies associated with our analysis and presents key calculations and conclusions.

## **BACKGROUND**

Centegra is the sole corporate member of Centegra Hospital - McHenry, Centegra Hospital - Woodstock, and Centegra Specialty Hospital - Woodstock South Street. Today, Centegra is McHenry County's largest employer with nearly 4,000 Associates, 500 volunteers and more than 475 physicians on staff.

We understand that Centegra is proposing the establishment of an 128-bed acute care hospital in Huntley, Illinois that includes 100 Medical Surgical beds, 8 Intensive Care beds, and 20 Obstetric beds (the "Project"). The State of Illinois has identified a need for additional beds in the greater McHenry County region (A-10 planning area) that the Project is intended to address. In addition to providing inpatient care, the Project will provide emergency care, surgical services, imaging, and various other inpatient and outpatient services.

## **PURPOSE**

The objective of this engagement is to assist Centegra by performing a market assessment and impact study that will evaluate area population growth and the key operating metrics of the Project, as well as any impact to other A-10 Planning Area hospitals. These analyses are prepared in connection with the completion of the Certificate of Need ("CON") application for this Project that Centegra anticipates filing with the Illinois Health Facilities and Services Review Board ("IHFSRB") by December 31, 2010.

We understand our work product will be used by you in your preparation of the CON application and that we may be called to testify in connection with the IHFSRB consideration of the Project. No other use of our analyses or work product beyond those described above is intended or should be inferred.

## APPROACH AND METHODOLOGY

### Population Study for the Market Area

We utilized Claritas® via Intellimed® to affirm the current population and expected growth trends by zip code for the communities near the Project. Because the expected Project site is located in Huntley, IL, which falls in McHenry County, approximately two miles from the Kane County line, we analyzed zip codes in both McHenry County as well as Kane County. See Exhibit I for population growth data for Kane and McHenry County, 2010-2015.

Claritas® via Intellimed® estimated overall population growth for the next five years for McHenry County and Kane County at 8.7 percent and 9.1 percent respectively. See Exhibit I for detailed five-year projections by zip code for each county. Based upon the data from Claritas®, we calculated the compound annual growth rate for each of the zip codes and used that growth rate to project population by zip code for 2017 and 2018, see Exhibit II.

We then selected 16 zip codes immediately surrounding the proposed site to evaluate and determine the “primary service area” or “PSA” and the “secondary service area” or “SSA” (collectively, the “Market Area”) of the Project. Table I, below, defines the Market Area by zip code with the current (2010) population and projected population for 2015, 2017 and 2018.

The PSA is comprised of 10 zip codes and the SSA is comprised of six zip codes. One zip code in the SSA, zip code 60039, is for Crystal Lake post office boxes. A number of patients that currently use Centegra’s two other facilities use a post office box corresponding to this zip code as their mailing address. As shown in Table I, the overall population in the Market Area is estimated to increase approximately 13.7 percent by 2018. See Exhibit III for a map of the Market Area and Exhibit IV for travel times and mileage to area hospitals.

**Table I  
Market Area Projected Population by Zip Code**

Service Area	Zip Code	City	2010 Population	2015 Population	2017 Population	2018 Population
PSA	60014	Crystal Lake	51,100	54,360	55,722	56,415
PSA	60102	Algonquin	34,875	38,586	40,179	41,000
PSA	60110	Carpentersville	40,768	44,696	46,371	47,232
PSA	60118	Dundee	18,930	20,601	21,310	21,674
PSA	60136	Gilberts	6,670	7,453	7,791	7,966
PSA	60140	Hampshire	14,226	15,962	16,714	17,104
PSA	60142	Huntley	25,824	28,940	30,289	30,987
PSA	60152	Marengo	13,072	14,140	14,591	14,822
PSA	60156	Lake in the Hills	30,066	33,118	34,424	35,096
PSA	60180	Union	1,485	1,550	1,577	1,590
		<b>Total</b>	<b>237,016</b>	<b>259,406</b>	<b>268,968</b>	<b>273,886</b>
SSA	60010	Barrington	44,088	45,154	45,588	45,806
SSA	60012	Crystal Lake	11,265	11,954	12,241	12,387
SSA	60013	Cary	30,084	32,989	34,228	34,865
SSA	60021	Fox River Grove	6,274	6,514	6,613	6,662
SSA	60098	Woodstock	33,657	36,514	37,724	38,343
SSA	60039	Crystal Lake	-	-	-	-
			<b>125,368</b>	<b>133,125</b>	<b>136,394</b>	<b>138,063</b>
<b>Total</b>			<b>362,384</b>	<b>392,531</b>	<b>405,362</b>	<b>411,949</b>

Source: Claritas® via Intellimed® for 2010 to 2015 projections

The compound annual growth rate derived from the 2010-2015 study was used to estimate the 2017 and 2018 population

Note: Zip Code 60039 is for post office boxes and therefore no population numbers exist

***A Majority of the Population in the Market Area Resides in McHenry County***

Based on the information provided above, we estimated the mid-2018 population by zip code. For those zip codes located in two or more counties, we estimated the allocation of population by county based on the approximate percentage of land space for each county. Table II demonstrates that the majority (60.5 percent) of the estimated 2018 population in the Market Area of the Project will reside in McHenry County.

**Table II**  
**Mid-2018 Projected Population by County**

Zip Code	Town	Mid-2018 Population	County				
			McHenry	Kane	Lake	DeKalb	Cook
60014	Crystal Lake	56,070	56,070				
60102	Algonquin	40,589	37,339	3,250			
60110	Carpentersville	46,801		46,801			
60118	Dundee	21,492		19,000			2,492
60136	Gilberts	7,878		7,878			
60140	Hampshire	16,909		15,200		1,709	
60142	Huntley	30,638	17,638	13,000			
60152	Marengo	14,706	14,706				
60156	Lake in the Hills	34,760	34,760				
60180	Union	1,583	1,583				
<b>Total PSA</b>		<b>271,426</b>	<b>162,096</b>	<b>105,129</b>	<b>0</b>	<b>1,709</b>	<b>2,492</b>
<b>% of Population</b>			<b>59.72%</b>	<b>38.73%</b>	<b>0.00%</b>	<b>0.63%</b>	<b>0.92%</b>
60010	Barrington	45,697	1,800	750	18,764		24,383
60012	Crystal Lake	12,314	12,314				
60013	Cary	34,546	29,546		5,000		
60021	Fox River Grove	6,637	3,437		3,200		
60098	Woodstock	38,033	38,033				
60039	Crystal Lake	0	0				
<b>TOTAL SSA</b>		<b>137,227</b>	<b>85,130</b>	<b>750</b>	<b>26,964</b>	<b>0</b>	<b>24,383</b>
<b>% of Population</b>			<b>62.04%</b>	<b>0.55%</b>	<b>19.65%</b>	<b>0.00%</b>	<b>17.77%</b>
<b>TOTAL</b>		<b>408,653</b>	<b>247,226</b>	<b>105,879</b>	<b>26,964</b>	<b>1,709</b>	<b>26,875</b>
<b>% of Population</b>			<b>60.50%</b>	<b>25.91%</b>	<b>6.60%</b>	<b>0.42%</b>	<b>6.58%</b>

Source: Claritas® via Intellimed® for 2010 to 2015 projections

The compound annual growth rate derived from the 2010-2015 study was used to estimate the mid-2018 population

Zip codes located in multiple counties were allocated based on an estimate of land space in each county

Note: Zip Code 60039 is for post office boxes and therefore no population numbers exist

**Estimated Utilization in the Second Full Year of Operation**

Using COMPdata® via Intellimed®, we analyzed current Medical Surgical, Intensive Care and Obstetric volumes (i.e., number of cases and patient days) in the Project's Market Area in order to understand their distribution and utilization rates by zip code, as well as by MS-DRG, age cohort and payer.

Projected 2017 and 2018 cases and patient days for Centegra Hospital - Huntley's Market Area were projected, based upon Claritas® population projections via Intellimed® for the 2010 - 2015 period by zip code and age cohort. We applied the compound annual growth rate, derived from the 2010-2015 study, by zip code and age cohort to estimate the 2017 and 2018 cases from 2015 which is shown in Exhibit V.

Utilizing the actual experience of both Centegra Hospital - McHenry and Centegra Hospital - Woodstock

and our knowledge of new hospital developments, we estimated the incremental market share by zip code for Medical Surgical, Intensive Care and Obstetrical Services in the Market Area. Market share was determined based on Centegra Health System's historical caseload by zip code and what was expected in 2018 when Centegra Hospital – Huntley opens. We estimated the incremental market share of Centegra Health System and also estimated the cases and days specific to the Project in order to determine its market share and case volume in 2017 and 2018, which is shown in Exhibit V. The assumptions underlying the projected utilization for the Medical-Surgical, Intensive Care, and Obstetric Services are found in Exhibit VII.

Centegra Hospital – Huntley's market share for Medical Surgical and Intensive Care admissions in the Market Area was estimated to be 17.4 percent during the first full year of the hospital's operation (FY17) as shown in Exhibit V. The market share was estimated to increase to 22.8 percent in the second full year of the hospital's operation (FY18) also shown in Exhibit V. The projected Medical-Surgical and Intensive Care cases and patient days in FY18 were assumed to increase in comparison to the projected Medical-Surgical and Intensive Care cases and patient days in FY17 due to the "ramp up" of services after Centegra Hospital - Huntley becomes operational. The number of cases in FY17 is estimated to be 73.7 percent of the cases in FY18.

After the estimated Medical-Surgical patient days were calculated, 8.2 percent and 7.6 percent of Centegra Hospital-Huntley's Medical-Surgical patient days for both FY17 and FY18 respectively, were removed from the projected utilization of the Medical-Surgical Category of Service to estimate the utilization of Centegra Hospital - Huntley's Intensive Care Category of Service. See Table III.

Centegra Hospital – Huntley's market share for Obstetrical admissions in the Market Area was estimated to be 27.8 percent during the first full year of the hospital's operation (FY17) as shown in Exhibit V. The market share was estimated to increase to 36.7 percent in the second full year of the hospital's operation (FY18) as shown in Exhibit V. The projected Obstetric cases and patient days in FY18 were assumed to increase in comparison to the projected Medical-Surgical and Intensive Care cases and patient days in FY17 due to the "ramp up" of services after Centegra Hospital - Huntley becomes operational. The number of cases in FY17 is estimated to be 74.8 percent of the cases in FY18.

Table III summarizes the total admissions and patient days for FY17 and FY18. Observation days of 1,385 and 2,036 were included in Medical-Surgical days for FY17 and FY18 respectively. Based on the overall projected cases and days, Centegra Hospital- Huntley's utilization in FY18 is expected to be 95.5 percent for the 100-bed Medical Surgical unit, 97.6 percent for the 8-bed Intensive Care unit, and 77.4 percent for the 20-bed Obstetric unit.

**Table III  
Projected Admissions and Days for the Centegra Hospital -- Huntley**

Unit	Proposed Authorized Beds	Admissions		Days		Utilization
		2017	2018	2017	2018	2018
Med Surg (incl observation)	100	6,412	8,699	25,371	34,867	95.5%
Intensive Care	8			2,270	2,850	97.6%
Obstetrics (incl observation)	20	1,543	2,063	4,222	5,647	77.4%
<b>Total</b>	<b>128</b>	<b>7,955</b>	<b>10,762</b>	<b>31,863</b>	<b>43,364</b>	<b>92.8%</b>

Projected utilization for all Ancillary Clinical Service Areas for which there are State Guidelines for target occupancy or utilization are presented in Exhibit VI. The assumptions underlying these utilization projections are found in Exhibit VII.

*Existing Planning Area Hospitals' Patient Volume will be Maintained or Increase Between Now and FY18.*

We estimate that the hospitals in the A-10 Planning Area which have Medical-Surgical, Intensive Care, or Obstetric Services will maintain their current utilization and will most likely increase in utilization between now and 2018. In order to perform our analysis, we looked at the current cases of three A-10 Planning Area hospitals that provide these services in all zip codes and estimated the growth that would occur inside and outside the Market area between now and FY18. We then estimated the lost cases to the Project to determine the total FY18 cases. See Table IV on the next page.

**Table IV  
Impact to Hospitals in the A-10 Planning Area**

Net Cases Remaining at Planning Area Facilities	Current Cases	2018 Growth		Lost Cases -	
		PSA + SSA	Outside Service Area	Centegra Huntley	Total 2018 Cases
<b>Med/Surg Net Cases</b>					
Centegra Woodstock	6,542	1,126	307	(400)	7,575
Centegra McHenry	9,506	680	1,742	(219)	11,709
Mercy Harvard	600	14	101	(5)	710
<b>Total Cases</b>	<b>16,648</b>	<b>1,820</b>	<b>2,150</b>	<b>(624)</b>	<b>19,994</b>
<b>OB Net Cases</b>					
Centegra Woodstock	1,235	72	28	(58)	1,277
Centegra McHenry	1,168	42	52	(37)	1,225
Mercy Harvard	2	-	-	-	2
<b>Total Cases</b>	<b>2,405</b>	<b>114</b>	<b>80</b>	<b>(95)</b>	<b>2,504</b>
<b>Total Net Cases</b>					
Centegra Woodstock	7,777	1,198	335	(458)	8,852
Centegra McHenry	10,674	722	1,794	(256)	12,934
Mercy Harvard	602	14	101	(5)	712
<b>Total Cases</b>	<b>19,053</b>	<b>1,934</b>	<b>2,230</b>	<b>(719)</b>	<b>22,498</b>

Source: COMPdata® and Claritas® via Intellimed for historical caseload and growth projections  
Deloitte determined the net cases (current cases plus growth less lost cases to Centegra Hospital-Huntley) based on the estimated admissions shown in Exhibit V.

## CONCLUSION

Based upon the analysis described above and in the attached Exhibits, we have concluded that (1) a majority of the population in the Market Area resides and will reside in McHenry county in 2018, (2) Centegra Hospital – Huntley will exceed State Guidelines for target occupancy and utilization for all categories of service (Medical Surgical, Intensive Care, and Obstetrics) and ancillary Clinical Service Areas and (3) all existing hospitals within the A-10 Planning Area which have Medical-Surgical, Intensive Care, or Obstetric Services will maintain or exceed their existing patient volume between now and FY18.

We are independent of Centegra Health System and our fee for this analysis was in no way influenced by the results of our work. The qualifications of the individuals who prepared this analysis are attached as Appendix A to this report.

## LIMITATIONS

The information contained within has been derived primarily from documents provided by Centegra Health System, as well as COMPdata® via Intellimed® and Claritas® via Intellimed®. This information includes both audited and unaudited financial and operational information. We have not audited, reviewed, or compiled this information. Accordingly, we express no opinion or other form of assurance on it.

Our procedures with respect to any forecast, projections, or forward looking financial information includes or referred to herein, do not constitute an examination of a forecast in accordance with U.S. generally accepted auditing standards, nor do they constitute an examination of a forecast in accordance with standards established by the AICPA, Therefore, we express no opinion or other form of assurance on them.

Our observations, analyses, and calculations are based on available data, procedures, and analysis set forth herein. They are subject to revision upon the performance of additional procedures or additional information we may become aware of.

## APPENDIX A

### QUALIFICATIONS

The individuals responsible for performing this analysis are members of Deloitte's health care financial advisory service practice.

*Daniel Lynn* is the engagement partner on this assignment and has been active in coordinating our fieldwork, overseeing our analyses, and reviewing the final work product. Dan is a national practice leader for our health care industry financial advisory services practice. He has over 20 years of financial advisory experience and has performed numerous studies with respect to health care entities, including medical practices, hospitals, nursing homes, skilled nursing facilities, ambulatory surgery centers, outpatient rehabilitation centers, medical practices, HMOs and PPOs.

*Lee Piekarz* is an additional project resource on this engagement. Lee is a senior manager in Deloitte's health care financial advisory services practice. Lee has over fifteen years of extensive industry experience working with health systems, hospitals and physician groups. Lee provides these clients counsel in the areas of financial consulting, due diligence on business acquisitions, regulatory compliance, third-party reimbursement and revenue cycle management.

*Daniel Mruz* is a manager on this assignment. He has over 20 years of financial advisory experience and has performed numerous projects with respect to health care entities, including hospitals, ambulatory care centers and nursing facilities.

**Exhibit I**  
**Population Growth for Kane and McHenry County**

County	Zip Code	City	Service Area	2010 Volume	2015 Volume	Percent	CAGR
Kane County, IL	60110	Carpentersville	PSA	40,768	44,696	9.6%	1.9%
Kane County, IL	60118	Dundee	PSA	18,930	20,601	8.8%	1.7%
Kane County, IL	60119	Elburn		9,717	10,756	10.7%	2.1%
Kane County, IL	60120	Elgin		49,715	51,314	3.2%	0.6%
Kane County, IL	60123	Elgin		49,579	52,647	6.2%	1.2%
Kane County, IL	60124	Elgin		17,629	20,153	14.3%	2.7%
Kane County, IL	60134	Geneva		28,452	31,587	11.0%	2.1%
Kane County, IL	60136	Gilberts	PSA	6,670	7,453	11.7%	2.2%
Kane County, IL	60140	Hampshire	PSA	14,226	15,962	12.2%	2.3%
Kane County, IL	60151	Maple Park		5,463	6,174	13.0%	2.5%
Kane County, IL	60174	Saint Charles		34,493	36,652	6.3%	1.2%
Kane County, IL	60175	Saint Charles		22,648	24,869	9.8%	1.9%
Kane County, IL	60177	South Elgin		22,068	24,354	10.4%	2.0%
Kane County, IL	60505	Aurora		68,331	75,235	10.1%	1.9%
Kane County, IL	60506	Aurora		58,639	64,178	9.4%	1.8%
Kane County, IL	60510	Batavia		31,937	34,941	9.4%	1.8%
Kane County, IL	60511	Big Rock		2,541	2,845	12.0%	2.3%
Kane County, IL	60539	Mooseheart		43	50	16.3%	3.1%
Kane County, IL	60542	North Aurora		17,181	19,392	12.9%	2.5%
Kane County, IL	60554	Sugar Grove		11,150	12,783	14.6%	2.8%
<b>Kane County, IL Total</b>				<b>510,180</b>	<b>556,642</b>	<b>9.11%</b>	<b>1.8%</b>
McHenry County, IL	60012	Crystal Lake	SSA	11,265	11,954	6.1%	1.2%
McHenry County, IL	60013	Cary	SSA	30,084	32,989	9.7%	1.9%
McHenry County, IL	60014	Crystal Lake	PSA	51,100	54,360	6.4%	1.2%
McHenry County, IL	60021	Fox River Grove	SSA	6,274	6,514	3.8%	0.8%
McHenry County, IL	60033	Harvard		16,034	17,501	9.1%	1.8%
McHenry County, IL	60034	Hebron		2,341	2,542	8.6%	1.7%
McHenry County, IL	60050	McHenry		32,142	34,717	8.0%	1.6%
McHenry County, IL	60051	McHenry		25,525	27,294	6.9%	1.3%
McHenry County, IL	60071	Richmond		4,658	5,208	11.8%	2.3%
McHenry County, IL	60072	Ringwood		853	938	10.0%	1.9%
McHenry County, IL	60081	Spring Grove		10,228	11,507	12.5%	2.4%
McHenry County, IL	60097	Wonder Lake		11,814	12,734	7.8%	1.5%
McHenry County, IL	60098	Woodstock	SSA	33,657	36,514	8.5%	1.6%
McHenry County, IL	60102	Algonquin	PSA	34,875	38,586	10.6%	2.0%
McHenry County, IL	60142	Huntley	PSA	25,824	28,940	12.1%	2.3%
McHenry County, IL	60152	Marengo	PSA	13,072	14,140	8.2%	1.6%
McHenry County, IL	60156	Lake in the Hills	PSA	30,066	33,118	10.2%	2.0%
McHenry County, IL	60180	Union	PSA	1,485	1,550	4.4%	0.9%
<b>McHenry County, IL Total</b>				<b>341,297</b>	<b>371,106</b>	<b>8.73%</b>	<b>1.7%</b>

Source: Claritas® via Intellimed® for 2010 to 2015 projections

Note: Zip Code 60039 is for post office boxes and therefore no population numbers exist

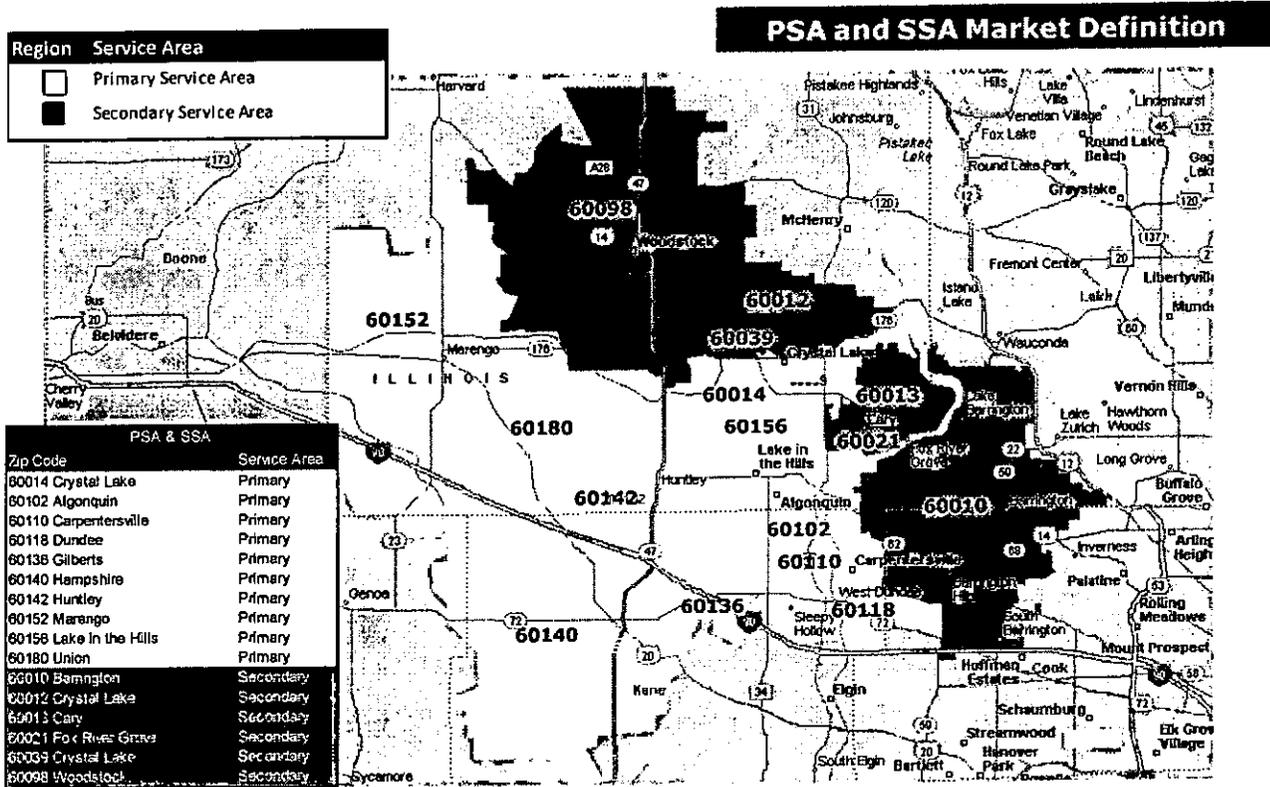
**Exhibit II**  
**Compound Annual Growth Rate ("CAGR"), 2010-2015**

Zip	City	Service Area	2010 Population	2015 Population	Ages 0 - 17 (10-15)	Ages 18 - 34 (10-15)	Ages 35 - 44 (10-15)	Ages 45 - 64 (10-15)	Ages 65+ (10-15)	Overall CAGR
60014	Crystal Lake	PSA	51,100	54,360	0.3%	1.5%	-1.6%	2.4%	3.8%	1.2%
60102	Algonquin	PSA	34,875	38,586	1.5%	3.4%	-3.2%	3.5%	6.0%	2.0%
60110	Carpentersville	PSA	40,768	44,696	1.6%	-0.4%	1.8%	3.8%	5.6%	1.9%
60118	Dundee	PSA	18,930	20,601	1.6%	0.9%	-0.2%	2.1%	5.1%	1.7%
60136	Gilberts	PSA	6,670	7,453	1.0%	2.3%	2.7%	1.3%	7.3%	2.2%
60140	Hampshire	PSA	14,226	15,962	2.1%	1.7%	1.6%	2.2%	5.1%	2.3%
60142	Huntley	PSA	25,824	28,940	1.9%	1.0%	2.7%	2.2%	4.6%	2.3%
60152	Marengo	PSA	13,072	14,140	0.7%	1.3%	1.7%	1.6%	3.4%	1.6%
60156	Lake in the Hills	PSA	30,066	33,118	1.5%	0.6%	-0.7%	4.9%	5.8%	2.0%
60180	Union	PSA	1,485	1,550	-0.4%	1.0%	1.7%	0.5%	2.5%	0.9%
<b>Total</b>			<b>237,016</b>	<b>259,406</b>	<b>1.3%</b>	<b>1.2%</b>	<b>-0.1%</b>	<b>2.9%</b>	<b>4.8%</b>	<b>1.8%</b>

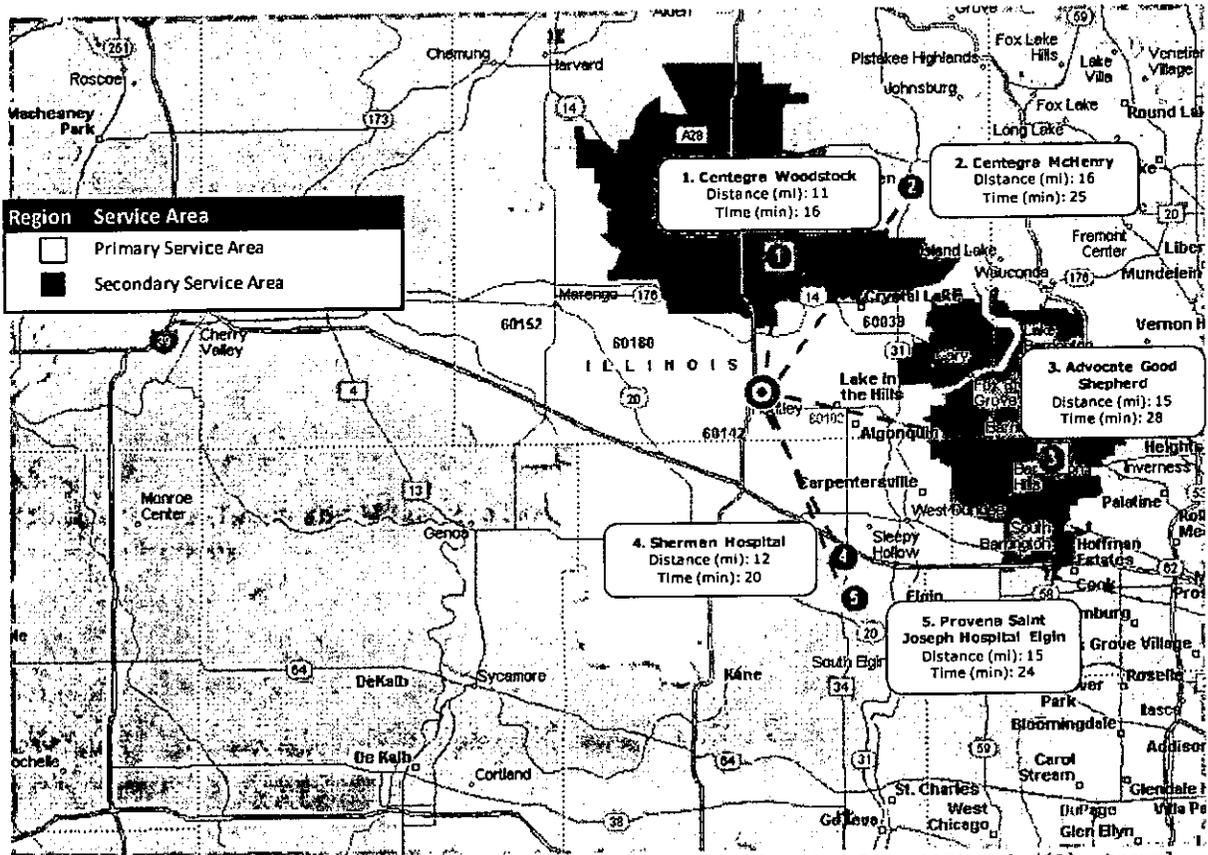
Zip	City	Service Area	2010 Population	2015 Population	Ages 0 - 17 (10-15)	Ages 18 - 34 (10-15)	Ages 35 - 44 (10-15)	Ages 45 - 64 (10-15)	Ages 65+ (10-15)	Overall CAGR
60010	Barrington	SSA	44,088	45,154	-0.5%	3.6%	-3.6%	-1.1%	3.8%	2.2%
60012	Crystal Lake	SSA	11,265	11,954	-0.7%	2.3%	-0.1%	0.7%	4.8%	7.0%
60013	Cary	SSA	30,084	32,989	0.6%	3.3%	-3.7%	3.1%	5.4%	8.7%
60021	Fox River Grove	SSA	6,274	6,514	-1.0%	2.0%	-4.5%	2.1%	3.8%	2.4%
60098	Woodstock	SSA	33,657	36,514	0.9%	0.5%	1.9%	2.4%	3.4%	9.1%
<b>Total</b>			<b>125,368</b>	<b>133,125</b>	<b>0.1%</b>	<b>2.4%</b>	<b>-1.5%</b>	<b>1.0%</b>	<b>4.1%</b>	<b>1.2%</b>

Source: Claritas® via Intellimed® for 2010 to 2015 projections  
 Note: Zip Code 60039 is for post office boxes and therefore no population numbers exist

**Exhibit III**  
**Map of Primary and Secondary Service Area**



**Exhibit IV**  
**Map with Travel Times and Mileage to Hospitals within 30 Minutes Travel Time of Centegra Hospital – Huntley**



Source: Mapquest ([www.mapquest.com](http://www.mapquest.com)); In accordance with 77 Ill. Adm. Code 1100.510.d(2), travel time has been calculated using Mapquest's determination times 1.15.

**Exhibit V**  
**Centegra Hospital - Huntley Admission Volume Projections by Zip Code for 2017 and 2018**

Admission Projections - 2017									Huntley Admissions	
Zip Code	Service Area	Current Admission Volume	Projected 2017 OB Volume	Projected 2017 Med Srg Volume	Projected 2017 Total Admission Volume	Estimated 2017 Market Share	Current Centegra Admission Volume	Centegra Huntley 2017 Market Share	2017 OB Admission Volume	2017 Med Srg Admission Volume
60014 Crystal Lake	Primary	4,815	725	4,928	5,653	55.00%	2,446	18.22%	241	898
60102 Algonquin	Primary	2,661	481	2,930	3,411	25.00%	222	19.79%	167	580
60110 Carpentersville	Primary	3,407	890	3,195	4,085	20.00%	44	19.25%	305	615
60118 Dundee	Primary	1,511	183	1,687	1,870	10.00%	19	9.29%	45	157
60136 Gilberts	Primary	519	174	466	640	20.00%	7	19.45%	60	91
60140 Hampshire	Primary	1,153	306	1,123	1,429	25.00%	25	24.12%	120	271
60142 Huntley	Primary	3,505	351	4,167	4,518	60.00%	672	51.08%	232	2,128
60152 Marengo	Primary	1,442	199	1,462	1,681	55.00%	694	13.72%	57	203
60156 Lake in the Hills	Primary	2,256	488	2,278	2,754	30.00%	471	12.96%	137	295
60180 Union	Primary	149	17	149	168	50.00%	69	8.40%	4	13
60010 Barrington	Secondary	4,034	378	4,246	4,624	3.00%	36	2.22%	8	94
60012 Crystal Lake	Secondary	881	94	965	1,059	57.00%	500	9.80%	9	95
60013 Cary	Secondary	2,235	369	2,405	2,774	17.00%	379	3.34%	12	80
60021 Fox River Grove	Secondary	496	67	507	574	7.00%	29	1.95%	1	10
60039 Crystal Lake	Secondary	38	4	36	40	45.00%	15	7.50%	0	3
60098 Woodstock	Secondary	3,581	511	3,702	4,213	75.00%	2,681	11.37%	58	420
<b>Total</b>		<b>32,683</b>	<b>5,237</b>	<b>34,264</b>	<b>39,501</b>		<b>8,309</b>		<b>1,456</b>	<b>5,953</b>
Market Share Percentage									<b>27.8%</b>	<b>17.4%</b>

Admission Projections - 2018									Huntley Admissions	
Zip Code	Service Area	Current Admission Volume	Projected 2018 OB Volume	Projected 2018 Med Srg Volume	Projected 2018 Total Admission Volume	Estimated 2018 Market Share	Current Centegra Admission Volume	Centegra Huntley 2018 Market Share	2018 OB Admission Volume	2018 Med Srg Admission Volume
60014 Crystal Lake	Primary	4,815	732	5,057	5,790	60.00%	2,446	24.09%	305	1,218
60102 Algonquin	Primary	2,661	491	3,052	3,543	30.00%	222	24.99%	209	763
60110 Carpentersville	Primary	3,407	893	3,308	4,201	30.00%	44	29.27%	418	968
60118 Dundee	Primary	1,511	185	1,747	1,932	20.00%	19	19.31%	69	337
60136 Gilberts	Primary	519	178	483	660	40.00%	7	39.47%	101	191
60140 Hampshire	Primary	1,153	311	1,163	1,474	40.00%	25	39.15%	176	456
60142 Huntley	Primary	3,505	357	4,330	4,687	65.00%	672	56.40%	264	2,442
60152 Marengo	Primary	1,442	202	1,517	1,719	55.00%	694	14.64%	65	222
60156 Lake in the Hills	Primary	2,256	492	2,360	2,852	40.00%	471	23.48%	202	554
60180 Union	Primary	149	17	152	169	50.00%	69	9.05%	4	14
60010 Barrington	Secondary	4,034	383	4,344	4,727	5.00%	36	4.24%	22	184
60012 Crystal Lake	Secondary	881	96	994	1,090	57.00%	500	11.13%	12	111
60013 Cary	Secondary	2,235	377	2,490	2,867	17.00%	379	3.78%	20	94
60021 Fox River Grove	Secondary	496	68	520	588	10.00%	29	5.07%	4	26
60039 Crystal Lake	Secondary	38	5	35	40	50.00%	15	12.24%	1	4
60098 Woodstock	Secondary	3,581	515	3,798	4,313	75.00%	2,681	12.84%	74	488
<b>Total</b>		<b>32,683</b>	<b>5,302</b>	<b>35,350</b>	<b>40,652</b>		<b>8,309</b>		<b>1,945</b>	<b>6,072</b>
Market Share Percentage									<b>36.7%</b>	<b>22.6%</b>

Source: COMPdata® and Claritas® via Intellimed® for current admissions and population projections (See Table I)  
 See Exhibit VII for the assumptions underlying these projected volumes

**Exhibit VI**  
**Centegra Hospital - Huntley Clinical Service Areas that are not Categories of Service**

<b>OTHER CLINICAL SERVICES</b>		<b>2017</b>	<b>2018</b>
Labor Delivery Recovery Suite births		1,497	2,022
C Section Suite procedures		606	819
Emergency Department visits		18,604	30,586
Surgery			
	Inpatient hours	2,736	4,759
	Outpatient hours	3,685	6,410
	<b>Total</b>	<b>6,421</b>	<b>11,169</b>
	Inpatient cases	1,263	2,196
	Outpatient cases	3,213	5,589
	<b>Total</b>	<b>4,476</b>	<b>7,785</b>
Endoscopy			
	Inpatient hours	465	733
	Outpatient hours	1,372	2,166
	<b>Total</b>	<b>1,837</b>	<b>2,899</b>
	Inpatient cases	542	855
	Outpatient cases	1,618	2,554
	<b>Total</b>	<b>2,160</b>	<b>3,409</b>
CT visits		3,094	4,187
MRI procedures		1,689	2,743
General Radiology & RF procedures		12,464	17,347
Ultrasound -Diagnostic visits		2,741	3,709
Nuclear Medicine visits		730	988

Source: See Exhibit VII for the assumptions underlying these projected volumes

## **Exhibit VII Assumptions Underlying Projected Utilization**

The assumptions underlying the projected utilization for all Clinical Service Areas for which State Guidelines regarding target occupancy or utilization exist are presented below:

### Medical-Surgical Category of Service

1. Using COMPdata via Intellimed, current Medical-Surgical volumes and Intensive Care volumes (i.e., number of cases and patient days) in the project's Primary Service Area (PSA) and Secondary Service Area (SSA) were analyzed by zip code by MS-DRG, age cohort and payor
2. Projected 2018 cases and patient days for the Centegra Hospital - Huntley's PSA and SSA were projected, based upon Claritas population projections via Intellimed for the 2010-2015 period by zip code and age cohort
3. Centegra Hospital - Huntley's estimated market share by zip code for the Medical-Surgical and Intensive Care Services was estimated, based upon Centegra Health System's historical caseload by zip code in the PSA and SSA for its existing hospitals.
4. The percentage of the existing market at Centegra Hospital - McHenry and Centegra Hospital - Woodstock that would be admitted to Centegra Hospital - Huntley was determined, based upon the assumption that a portion of the existing cases in the PSA would move to the new hospital because of the proximity of a zip code to the Huntley site.  
  
The percentage of the existing market that would remain at existing Centegra hospitals was determined based on the methodology provided in the previous paragraph.
5. The impact of projected population growth in the PSA and SSA by the first two full years of operation of Centegra Hospital - Huntley was estimated by using Claritas' projection of population growth via Intellimed by zip code and age cohort.
6. Centegra Hospital - Huntley's market share for Medical-Surgical and Intensive Care admissions in the PSA and SSA was estimated to be 17.4% during the first full year of operation of the hospital's operation (FY17). This market share was estimated to increase to 22.8% in the second full year of the hospital's operation (FY18).
7. The projected Medical-Surgical and Intensive Care cases and patient days in FY18 were assumed to increase in comparison to the projected Medical-Surgical and Intensive Care cases and patient days in FY17 due to the "ramp up" of services after Centegra Hospital - Huntley becomes operational. The number of cases in FY17 is estimated to be 73.7% of the cases in FY18.
8. 8.2% and 7.6% of Centegra Hospital - Huntley's estimated Medical-Surgical patient days for both FY17 and FY18 respectively, were removed because these patient days were estimated to constitute the utilization of the Intensive Care Unit.

### Intensive Care Category of Service

After the estimated Medical-Surgical patient days were calculated, as described in the preceding section, 8.2% and 7.6% of Centegra Hospital-Huntley's Medical-Surgical patient days for both FY17 and FY18

respectively, were removed from the projected utilization of the Medical-Surgical Category of Service.

These patient days are estimated to constitute the utilization of Centegra Hospital - Huntley's Intensive Care Category of Service.

#### Obstetric Category of Service

1. Using COMPdata via Intellimed, current Obstetric volumes (i.e., number of cases and patient days) in the project's Primary Service Area (PSA) and Secondary Service Area (SSA) were analyzed by zip code by MS-DRG, age cohort and payor
2. Projected 2018 cases and patient days for the Centegra Hospital - Huntley's PSA and SSA were projected, based upon Claritas population projections via Intellimed for the 2010-2015 period by zip code and age cohort
3. Centegra Hospital - Huntley's estimated market share by zip code for the Obstetric Service was estimated, based upon Centegra Health System's historical caseload by zip code in the PSA and SSA for its existing hospitals and to address the bed need as identified by the Illinois Health Facilities and Services Board.
4. The percentage of the existing market at Centegra Hospital - McHenry and Centegra Hospital - Woodstock that would be admitted to Centegra Hospital - Huntley was determined, based upon the assumption that a portion of the existing cases in the PSA would move to the new hospital because of the proximity of a zip code to the Huntley site.

The percentage of the existing market that would remain at existing Centegra hospitals was determined based on the methodology provided in the previous paragraph.

5. The impact of projected population growth in the PSA and SSA by the first two full years of operation of Centegra Hospital - Huntley was estimated by using Claritas' projection of population growth via Intellimed by zip code and age cohort.
6. Centegra Hospital - Huntley's market share for Obstetric admissions in the PSA and SSA was estimated to be 27.8% during the first full year of operation of the hospital's operation (FY17). This market share was estimated to increase to 36.7% in the second full year of the hospital's operation (FY18).
7. The projected Obstetric cases and patient days in FY18 were assumed to increase in comparison to the projected Obstetric cases and patient days in FY17 due to the "ramp up" of services after Centegra Hospital - Huntley becomes operational. The number of cases in FY17 is estimated to be 74.8% of the cases in FY18.

#### Surgery

1. The number of Surgical cases was determined by using the following assumptions.
  - a. The total number of inpatient Surgical cases was estimated to be 22.68% of total estimated inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

- b. The total number of outpatient Surgical cases was estimated to be 3.93% of total outpatient visits.

The estimated total number of outpatient visits was calculated at 14.68 outpatient visits per inpatient admission. This ratio is based upon the ratio of outpatient visits to inpatient admissions that is experienced at Centegra Hospital - McHenry.

- c. Because of the competition in the Surgery Service in the market area, the projected number of surgery cases was reduced to 90% of the projected number of both inpatient and outpatient cases that was calculated in a. and b. above.
2. Surgical hours were determined based upon the following assumptions.
    - a. Inpatient Surgical cases will average 2.17 hours (130 minutes) including clean-up and set-up time, based on historic experience at Centegra Hospital - McHenry.
    - b. Outpatient Surgical cases will average 1.15 hours (69 minutes) including clean-up and set-up time), based on historic experience at Centegra Hospital - McHenry.

#### Endoscopy

1. The number of Endoscopy cases was determined by using the following assumptions.

- a. The total number of inpatient Endoscopy cases was estimated to be 11.35% of total estimated inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

- b. The total number of outpatient Endoscopy cases was estimated to be 2.3% of total outpatient visits.

The estimated total number of outpatient visits was calculated at 14.68 outpatient visits per inpatient admission. This ratio is based upon the ratio of outpatient visits to inpatient admissions that is experienced at Centegra Hospital - McHenry.

- c. Because of the competition in the Endoscopy Service in the market area, the projected number of surgery cases was reduced to 70% of the projected number of both inpatient and outpatient cases that was calculated in a. and b. above.
2. Endoscopy hours were determined based upon the following assumptions.
    - a. Inpatient Endoscopy cases will average 0.858 hours (51.48 minutes) including clean-up and set-up time, based on historic experience at Centegra Hospital - McHenry.

- b. Outpatient Endoscopy cases will average 0.847 hours (50.81 minutes) including clean-up and set-up time), based on historic experience at Centegra Hospital - McHenry.

#### Emergency

The number of Emergency visits was determined by using the following assumptions.

1. 65.1% of inpatient admissions at Centegra Hospital - Huntley will be directly from the hospital's Emergency Department.
2. There will be 3.14 outpatient visits in the Emergency Room for each inpatient admission to the hospital.
3. Because of the competition for Emergency Services in the market area, the projected number of Emergency cases was reduced to 75% of the projected number of both inpatient and outpatient cases that was calculated in 1. and 2. above.

#### Diagnostic Imaging: Radiology and Fluoroscopy

The number of Radiology and Fluoroscopy procedures was determined by using the following assumptions.

1. The total number of inpatient Radiology and Fluoroscopy procedures was estimated to be 161 procedures per 100 inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

#### Diagnostic Imaging: Ultrasound

The number of Ultrasound visits was determined by using the following assumptions.

1. The total number of inpatient Ultrasound visits was estimated to be 14.12% of total estimated inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

2. The total number of outpatient Ultrasound visits was estimated to be 1.3% of total outpatient visits.

The estimated total number of outpatient visits was calculated at 14.68 outpatient visits per inpatient admission. This ratio is based upon the ratio of outpatient visits to inpatient admissions that is experienced at Centegra Hospital - McHenry.

#### Diagnostic Imaging: CT Scanning

The number of CT visits was determined by using the following assumptions.

1. The CT Scanner at Centegra Hospital - Huntley will be used only for inpatient scanning. The CT

Scanner at Centegra Health Center - Huntley, which is adjacent to the proposed hospital, will continue to be used for all outpatient CT scanning at this site.

2. The total number of inpatient CT visits was estimated by assuming that 38.9% of the hospital's inpatient admissions would have an average of 1.92 CT procedures.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

#### Diagnostic Imaging: MRI

The number of MRI procedures was determined by using the following assumptions.

1. The MRI Scanner at Centegra Hospital - Huntley will be used for both inpatient and outpatient scanning.
2. The total number of inpatient MRI procedures was estimated to be 12.94% of total estimated inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

3. The total number of outpatient MRI procedures was estimated to be 2.01% of total outpatient visits.

The estimated total number of outpatient visits was calculated at 14.68 outpatient visits per inpatient admission. This ratio is based upon the ratio of outpatient visits to inpatient admissions that is experienced at Centegra Hospital - McHenry.

4. Because of the competition for MRI scanning in the market area, the projected number of MRI procedures was reduced to 60% of the projected number of both inpatient and outpatient cases that was calculated in 2. and 3. above.

#### Diagnostic Imaging: Nuclear Medicine

The total number of Nuclear Medicine visits was estimated to be 9.18% of total estimated inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

#### Labor/Delivery/Recovery

98% of all Obstetrical admissions will utilize the Labor/Delivery/Recovery Suite.

#### C-Section Suite

40.5% of all Obstetrical admissions will have a procedure in the C-Section Suite.

**APPENDIX B**  
**PHYSICIAN REFERRAL LETTERS**

ATTACHMENT 20, APPENDIX B

Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine, Pediatrics, Emergency Medicine. My offices are located at:

Centegra Primary Care, Immediate Care  
10350 Haligus Rd.  
Huntley, IL 60142

Centegra Primary Care, Immediate Care  
360 Station Drive  
Crystal Lake, IL 60014

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

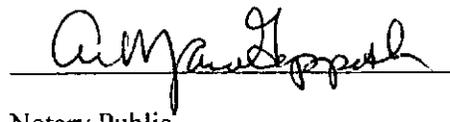
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

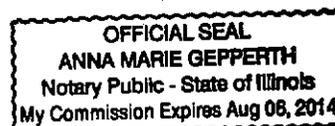


Dr. Marilyn LaCrosse

SUBSCRIBED and SWORN to before me  
this 01 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Family Practice. My offices are located at:

Centegra Primary Care, Immediate Care  
10350 Haligus Rd.  
Huntley, IL 60142

Centegra Primary Care, Immediate Care  
360 Station Drive  
Crystal Lake, IL 60014

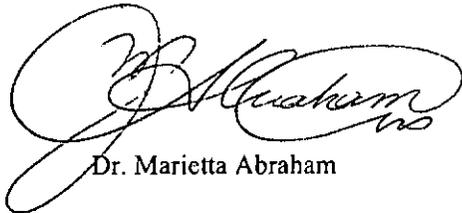
I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

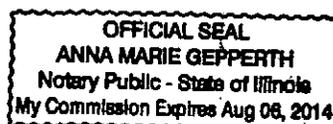
  
Dr. Marietta Abraham

SUBSCRIBED and SWORN to before me

this 20 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Urgent Care. My offices are located at:

Centegra Primary Care, Immediate Care  
10350 Haligus Rd.  
Huntley, IL 60142

Centegra Primary Care, Immediate Care  
360 Station Drive  
Crystal Lake, IL 60014

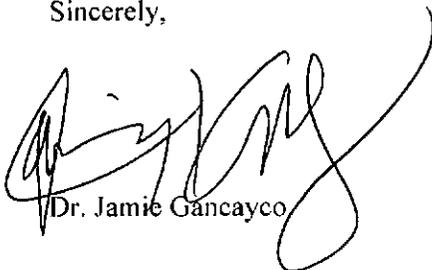
I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

  
Dr. Jamie Gancayco

SUBSCRIBED and SWORN to before me  
this 01 day of December, 2010.

  
Notary Public

Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Rheumatology. My primary office is located at:

Centegra Primary Care, Crystal Lake  
360 Station Dr,  
Crystal Lake, IL 60014

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

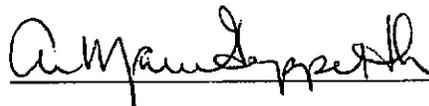
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

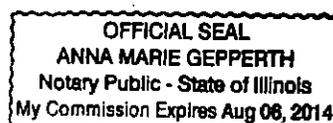


Dr. Pin Lin

SUBSCRIBED and SWORN to before me  
this 20<sup>th</sup> day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Centegra Primary Care, Algonquin  
2971 W Algonquin Rd, Suite 103  
Algonquin, IL 60102

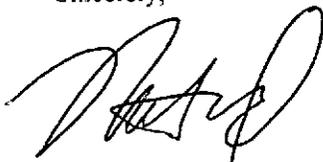
I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

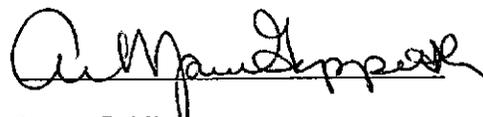
I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

  
Dr. Puish Patel

SUBSCRIBED and SWORN to before me  
this 21 day of December, 2010.

  
Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Centegra Primary Care, Algonquin  
2971 W. Algonquin Road, Suite 103  
Algonquin, IL 60102

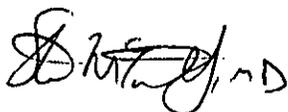
I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

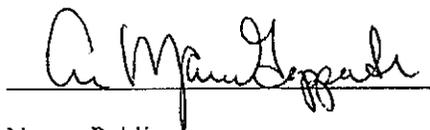
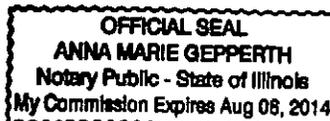
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,



Dr. Steven McCarthy

SUBSCRIBED and SWORN to before me  
this 21 day of December, 2010.

  
\_\_\_\_\_  
Notary Public

# Surgical Associates of Fox Valley

General, Vascular, Laparoscopic, Oncologic & Bariatric Surgery

Richard E. Lind, M.D. Amir J. Heydari, M.D. Aaron T. Schwaab, M.D. Eugene Lee, M.D. Michael J. Sherrow, M.D.

Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

Re: Centegra Hospital – Huntley

690 E. Terra Cotta Ave.  
Suite A  
Crystal Lake, IL 60014  
Phone: 815-455-2752  
Fax: 815-455-2789

Dear Sir or Madam,

3707 Doty Rd.  
Suite B  
Woodstock, IL 60098  
Phone: 815-206-5540  
Fax: 815-206-5561

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is General Surgery. My primary office is located at:

4309 Medical Center Dr.  
Suite A210  
McHenry, IL 60050  
Phone: 815-759-2830  
Fax: 815-759-2834

Surgical Associates of Fox Valley-Crystal Lake  
690 E. Terra Cotta Ave., Ste. A,  
Crystal Lake, IL 60014

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

4035D Haligus Rd.  
Suite 220  
Huntley, IL 60142  
Phone: 847-802-7239  
Fax: 847-802-7235

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

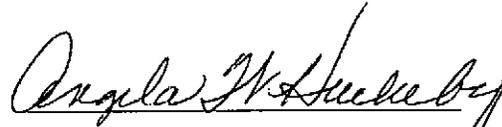
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

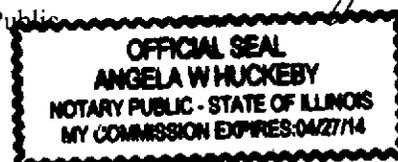


Dr. Richard Lind

SUBSCRIBED and SWORN to before me  
this 17<sup>th</sup> day of December, 2010.



Notary Public



# Surgical Associates of Fox Valley

General, Vascular, Laparoscopic, Oncologic & Bariatric Surgery

*Richard E. Lind, M.D. Amir J. Heydari, M.D. Aaron T. Schwaab, M.D. Eugene Lee, M.D. Michael J. Sherrow, M.D.*

Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is General Surgery. My primary office is located at:

Surgical Associates of Fox Valley-Crystal Lake  
690 E. Terra Cotta Ave., Ste. A,  
Crystal Lake, IL 60014

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

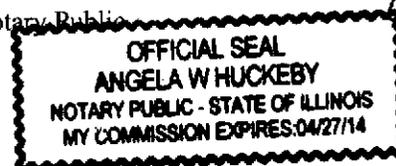


Dr. Michael Sherrow

SUBSCRIBED and SWORN to before me  
this 17<sup>th</sup> day of December, 2010.



Notary Public



# Surgical Associates of Fox Valley

General, Vascular, Laparoscopic, Oncologic & Bariatric Surgery

Richard E. Lind, M.D. Amir J. Heydari, M.D. Aaron T. Schwaab, M.D. Eugene Lee, M.D. Michael J. Sherrow, M.D.

Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

Re: Centegra Hospital – Huntley

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is General Surgery. My primary office is located at:

Surgical Associates of Fox Valley-Crystal Lake  
690 E. Terra Cotta Ave., Ste. A,  
Crystal Lake, IL 60014

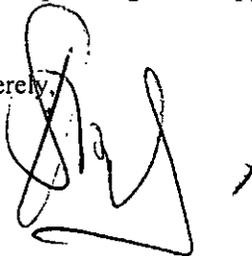
I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

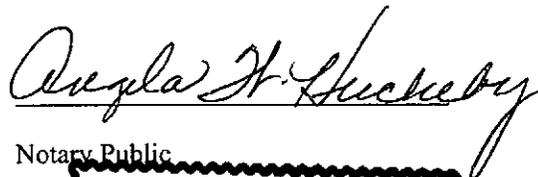
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,



Dr. Amir Heydari

SUBSCRIBED and SWORN to before me  
this 16<sup>th</sup> day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Pediatrics. My primary office is located at:

Centegra Primary Care, Huntley  
10350 Haligus Rd., Suite 200  
Huntley, IL 60142

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

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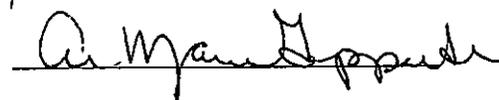
Sincerely,



Dr. Dana Hartwigsen

SUBSCRIBED and SWORN to before me

this 18 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Pediatrics. My primary office is located at:

Centegra Primary Care, Huntley  
10350 Haligus Rd., Suite 200  
Huntley, IL 60142

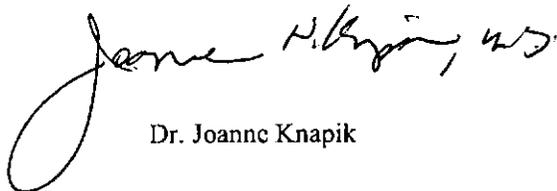
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I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

  
Dr. Joanne Knapik

SUBSCRIBED and SWORN to before me  
this 18 day of December, 2010.

  
Notary Public



# Surgical Associates of Fox Valley

General, Vascular, Laparoscopic, Oncologic & Bariatric Surgery

Richard E. Lind, M.D. Amir J. Heydari, M.D. Aaron T. Schwaab, M.D. Eugene Lee, M.D. Michael J. Sherrow, M.D.

Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

Re: Centegra Hospital – Huntley

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is General Surgery. My primary office is located at:

Surgical Associates of Fox Valley-Crystal Lake  
690 E. Terra Cotta Ave., Ste. A,  
Crystal Lake, IL 60014

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

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I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,



Dr. Aaron Schwaab

SUBSCRIBED and SWORN to before me  
this 17<sup>th</sup> day of December, 2010.



Notary Public



# Surgical Associates of Fox Valley

General, Vascular, Laparoscopic, Oncologic & Bariatric Surgery

Richard E. Lind, M.D. Amir J. Heydari, M.D. Aaron T. Schwaab, M.D. Eugene Lee, M.D. Michael J. Sherrow, M.D.

Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

Re: **Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is General Surgery. My primary office is located at:

Surgical Associates of Fox Valley-Crystal Lake  
690 E. Terra Cotta Ave., Ste. A,  
Crystal Lake, IL 60014

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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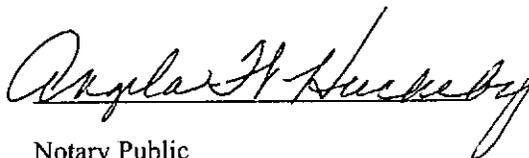
Sincerely,



Dr. Eugene Lee

SUBSCRIBED and SWORN to before me

this 17<sup>th</sup> day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Pediatrics. My primary office is located at:

Centegra Primary Care, Crystal Lake  
360 Station Dr,  
Crystal Lake, IL 60014

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

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I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,



Dr. Michael Gronberg

SUBSCRIBED and SWORN to before me

this 18 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Pediatrics. My primary office is located at:

Centegra Primary Care, Crystal Lake  
360 Station Dr,  
Crystal Lake, IL 60014

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Sincerely,



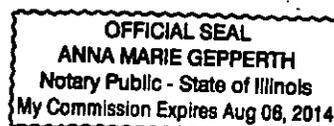
Dr. Laura Buthod

SUBSCRIBED and SWORN to before me

this 18 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Family Practice. My primary office is located at:

Centegra Primary Care, Spring Grove  
1906 Holian Dr  
Spring Grove, IL 60081

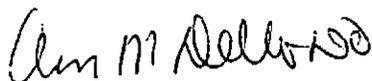
I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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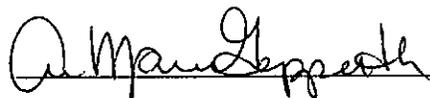
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,



Dr. Ann Dilla

SUBSCRIBED and SWORN to before me  
this 20 day of December, 2010.



Notary Public





**LOYOLA  
MEDICINE**

*Loyola University Chicago  
Stritch School of Medicine*

**Thoracic & Cardiovascular Surgery**  
Office: (708) 327-2503 • Fax: (708) 327-2382

Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Surgery, Cardio-Thoracic. My primary office is located at:

Cardiac Surgery Associates, S.C.-McHenry  
4309 Medical Center Dr., Ste. A200,  
McHenry, IL 60050

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

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I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

Dr. Jeffrey Schwartz

SUBSCRIBED and SWORN to before me  
this 17 day of December, 2010.

Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Centegra Primary Care, McHenry  
4309 Medical Center Dr  
McHenry, IL 60050

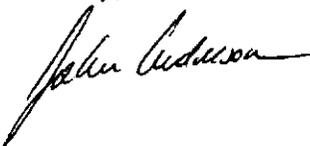
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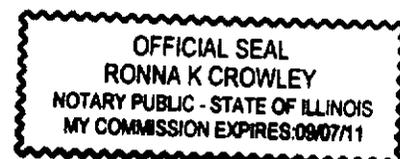


Dr. John Anderson

SUBSCRIBED and SWORN to before me  
this 21 day of DECEMBER, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Centegra Primary Care, McHenry  
4309 Medical Center Dr  
McHenry, IL 60050

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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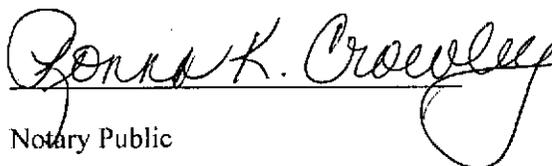
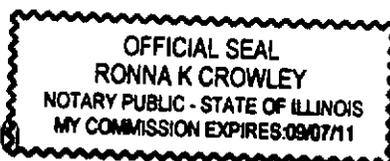
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,



Dr. Erin Davis

SUBSCRIBED and SWORN to before me  
this 21 day of DECEMBER, 2010.

  
Notary Public

Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Endocrinology. My primary office is located at:

Centegra Primary Care, McHenry  
4309 Medical Center Dr  
McHenry, IL 60050

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

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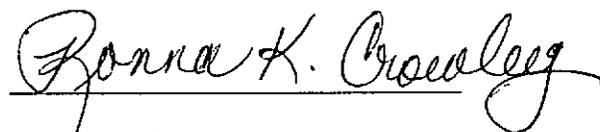
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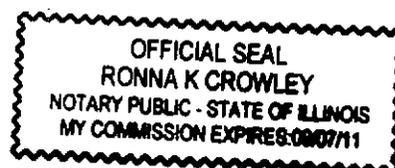
Dr. Jawaad Khokhar

SUBSCRIBED and SWORN to before me  
this 21 day of DECEMBER, 2010.



Notary Public

361



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Pediatrics. My primary office is located at:

*& Ped. Cardiology*  
Centegra Primary Care, McHenry  
4309 Medical Center Dr  
McHenry, IL 60050

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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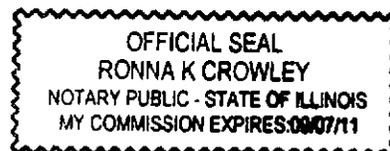
Sincerely,



Dr. R. David Halstead

SUBSCRIBED and SWORN to before me

this 21 day of DECEMBER, 2010.

  
Notary Public

Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Occupational Medicine. My primary office is located at:

Centegra Primary Care, McHenry  
4309 Medical Center Dr.  
McHenry, IL 60050

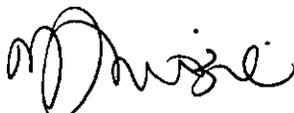
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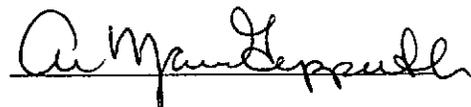
Sincerely,



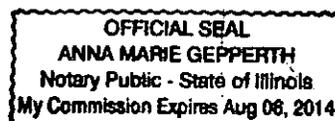
Dr. Stella Anozie

SUBSCRIBED and SWORN to before me

this 20 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Centegra Primary Care, McHenry  
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McHenry, IL 60050

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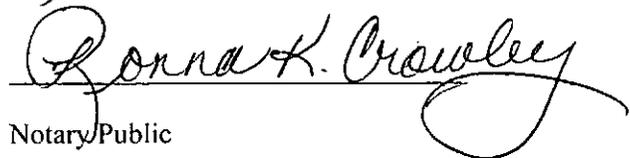
Sincerely,



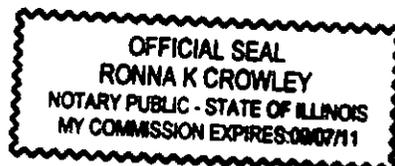
Dr. James Mowery

SUBSCRIBED and SWORN to before me

this 21 day of DECEMBER, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Centegra Primary Care, McHenry  
4309 Medical Center Dr  
McHenry, IL 60050

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

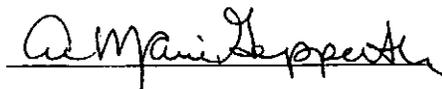
Sincerely,



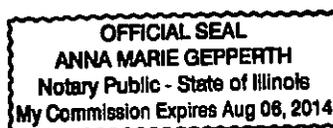
Dr. Linda Alic

SUBSCRIBED and SWORN to before me

this 18 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Centegra Primary Care, Crystal Lake  
360 Station Dr,  
Crystal Lake, IL 60014

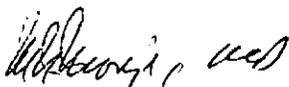
I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

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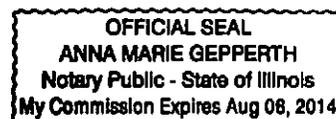
Sincerely,

  
Dr. Marife Monje

SUBSCRIBED and SWORN to before me

this 18 day of December, 2010.

  
\_\_\_\_\_  
Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Centegra Primary Care, Woodstock MOB2  
3707 Doty Rd  
Woodstock, IL 60098

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,



Dr. Marcel Hoffman

SUBSCRIBED and SWORN to before me

this 18 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Centegra Primary Care, Woodstock MOB2  
3707 Doty Rd  
Woodstock, IL 60098

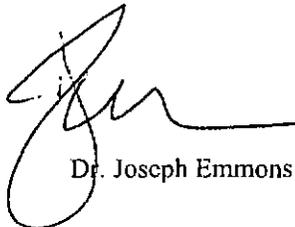
I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

  
Dr. Joseph Emmons

SUBSCRIBED and SWORN to before me  
this 18 day of December, 2010.

  
Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Occupational Medicine. My primary office is located at:

Centegra Primary Care, McHenry  
4309 Medical Center Dr.  
McHenry, IL 60050

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

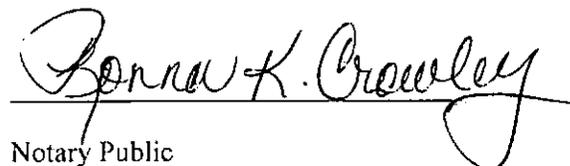
I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

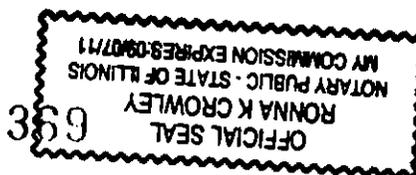
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

  
Dr. Alexander Jablonowski

SUBSCRIBED and SWORN to before me  
this 21 day of DECEMBER, 2010.

  
Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Pediatrics. My primary office is located at:

Centegra Primary Care, Woodstock MOB2  
3707 Doty Rd  
Woodstock, IL 60098

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

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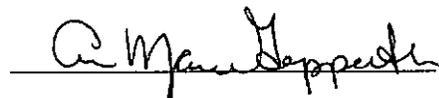
Sincerely,



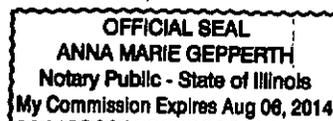
Dr. Laurie Louthain

SUBSCRIBED and SWORN to before me

this 18 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Pediatrics. My primary office is located at:

Centegra Primary Care, Woodstock MOB2  
3707 Doty Rd  
Woodstock, IL 60098

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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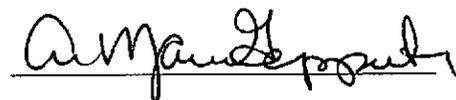
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,



Dr. Christine Poulos

SUBSCRIBED and SWORN to before me  
this 21 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Pediatrics. My primary office is located at:

Centegra Primary Care, Woodstock MOB2  
3707 Doty Rd  
Woodstock, IL 60098

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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Sincerely,



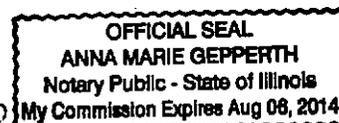
Dr. Patricia Nofzinger

SUBSCRIBED and SWORN to before me

this 21 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Chiropractic. My primary office is located at:

Centegra Primary Care, Woodstock MOB2  
3707 Doty Rd  
Woodstock, IL 60098

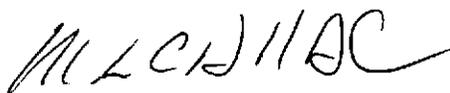
I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,



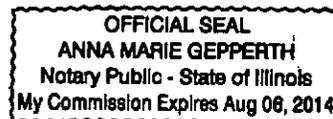
Dr. Mark Dowell

SUBSCRIBED and SWORN to before me

this 18 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Family Practice. My primary office is located at:

Centegra Primary Care, Woodstock MOB2  
3707 Doty Rd  
Woodstock, IL 60098

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

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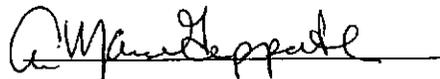
Sincerely,

 Robin F. Purdy, D.O., FAAPF

Dr. Robin Purdy

SUBSCRIBED and SWORN to before me

this 20 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Family Practice. My primary office is located at:

Centegra Primary Care, Woodstock MOB2  
3707 Doty Rd  
Woodstock, IL 60098

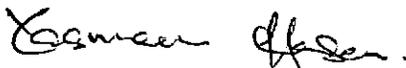
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I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,



Dr. Yaseem Hasan

SUBSCRIBED and SWORN to before me

this 20 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Family Practice. My primary office is located at:

Centegra Primary Care, Woodstock MOB2  
3707 Doty Rd  
Woodstock, IL 60098

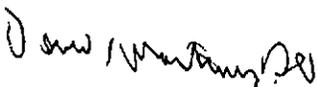
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I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

  
Dr. David Martinez

SUBSCRIBED and SWORN to before me  
this 21 day of December, 2010.

  
Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Centegra Primary Care, Huntley  
10350 Haligus Rd., Suite 200  
Huntley, IL 60142

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

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Sincerely,

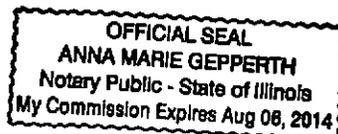


Dr. Renata Osadnik

SUBSCRIBED and SWORN to before me  
this 21 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Surgery, Hand. My primary office is located at:

Crystal Lake Orthopaedic Surgery & Sports Medicine-Crystal Lake  
750 E. Terra Cotta Ave., Ste. C,  
Crystal Lake, IL 60014

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

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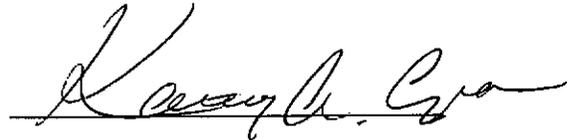
Sincerely,



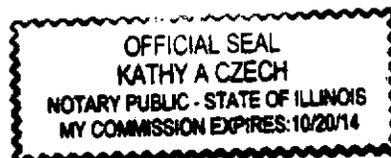
Dr. Kelly Holtkamp

SUBSCRIBED and SWORN to before me

this 16 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Orthopedics-Sports Medicine. My primary office is located at:

Crystal Lake Orthopaedic Surgery & Sports Medicine-Crystal Lake  
750 E. Terra Cotta Ave., Ste. C,  
Crystal Lake, IL 60014

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

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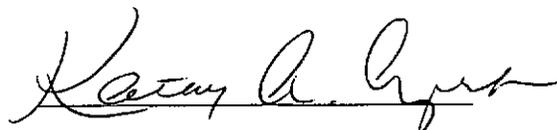
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,



Dr. Steven Rochell M.D.

SUBSCRIBED and SWORN to before me  
this 17<sup>th</sup> day of Dec., 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Orthopedics. My primary office is located at:

McHenry County Orthopaedics, SC-Crystal Lake  
420 N. Route 31,  
Crystal Lake, IL 60012

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

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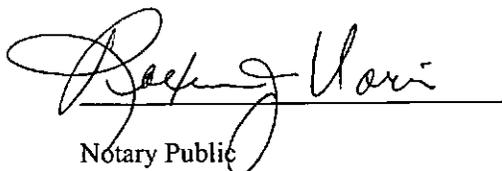
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

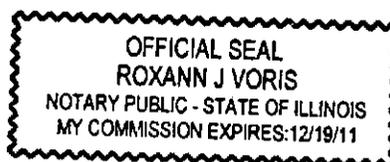


Dr. Timothy Havenhill

SUBSCRIBED and SWORN to before me  
this 17<sup>th</sup> day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Orthopedics. My primary office is located at:

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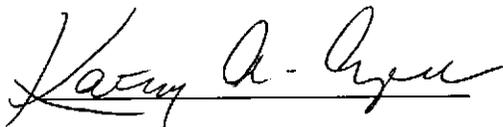
I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

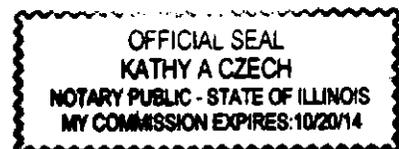
Sincerely,

Dr. John Daniels

SUBSCRIBED and SWORN to before me  
this 17<sup>th</sup> day of Dec, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Midwest Lakes Medical Center, SC  
690 E. Terra Cotta Ave., Ste. D,  
Crystal Lake, IL 60014

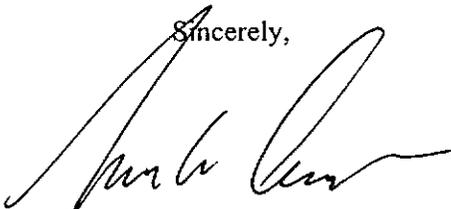
I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

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Sincerely,

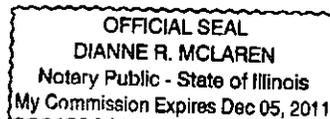


Dr. Mukesh Arora

SUBSCRIBED and SWORN to before me  
this 16<sup>th</sup> day of December 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Neurology. My primary office is located at:

The Center for Neurology  
750 E. Terra Cotta Ave., Ste. A,  
Crystal Lake, IL 60014

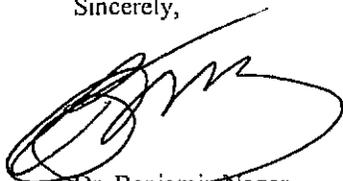
I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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Sincerely,

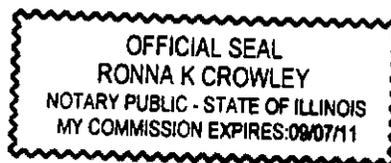


Dr. Benjamin Nager

SUBSCRIBED and SWORN to before me  
this 21 day of DECEMBER, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Orthopedics-Foot & Ankle. My primary office is located at:

McHenry County Orthopaedics, SC-Crystal Lake  
420 N. Route 31,  
Crystal Lake, IL 60012

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

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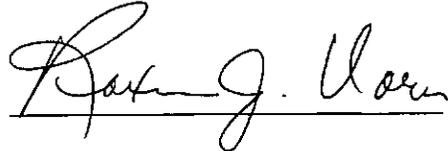
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Sincerely,

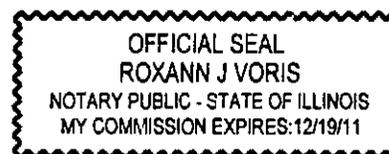


Dr. Matthew Samuelson

SUBSCRIBED and SWORN to before me  
this 17<sup>th</sup> day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Centegra Primary Care, Huntley  
10350 Haligus Rd., Suite 200  
Huntley, IL 60142

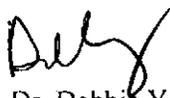
I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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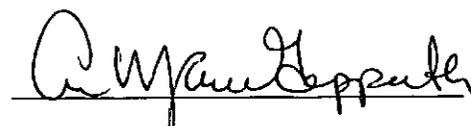
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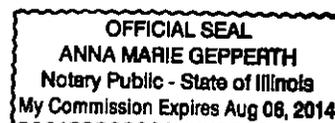
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

  
Dr. Debbie YuTungol

SUBSCRIBED and SWORN to before me  
this 21 day of December, 2010.

  
Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Congress Internal Medicine  
360 Station Dr., Ste. 201,  
Crystal Lake, IL 60014

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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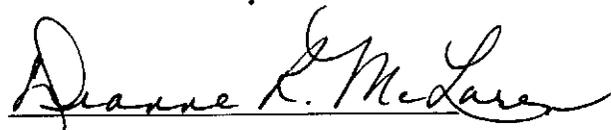
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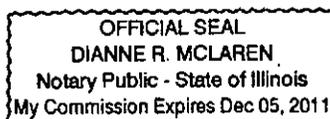
Sincerely,

  
Dr. Carol Kotzan

SUBSCRIBED and SWORN to before me  
this 17<sup>th</sup> day of December 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Congress Internal Medicine  
360 Station Dr., Ste. 201,  
Crystal Lake, IL 60014

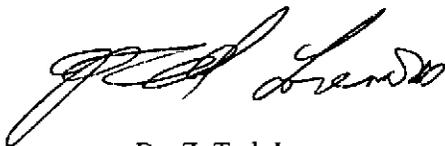
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Sincerely,

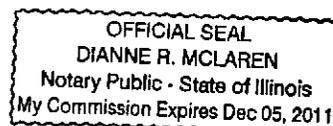


Dr. Z. Ted Lorenc

SUBSCRIBED and SWORN to before me  
this 17 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Neurosurgery. My primary office is located at:

Antonio C. Yuk, MD  
360 Station Dr., Ste. 240,  
Crystal Lake, IL 60014

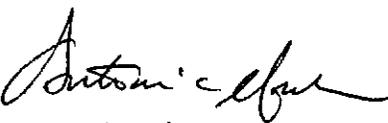
I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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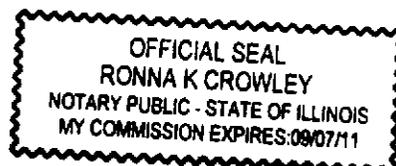
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

  
Dr. Antonio Yuk

SUBSCRIBED and SWORN to before me  
this 17 day of DECEMBER, 2010.

  
Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Orthopedics-Sports Medicine. My primary office is located at:

McHenry County Orthopaedics, SC-Crystal Lake  
420 N. Route 31,  
Crystal Lake, IL 60012

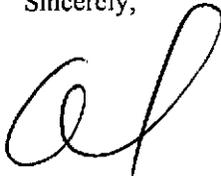
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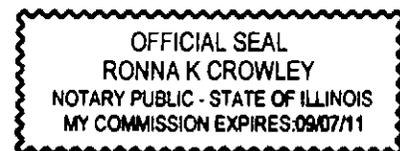
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

  
Dr. William Cox

SUBSCRIBED and SWORN to before me  
this 17 day of DECEMBER, 2010.

  
\_\_\_\_\_  
Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Congress Internal Medicine  
360 Station Dr., Ste. 201,  
Crystal Lake, IL 60014

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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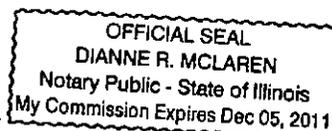


Dr. William Stinson

SUBSCRIBED and SWORN to before me  
this 17<sup>th</sup> day of December 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Fox Valley Internal Medicine, LLC  
650 Dakota St., Ste. A,  
Crystal Lake, IL 60012

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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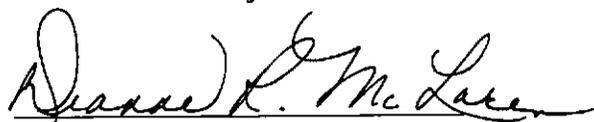
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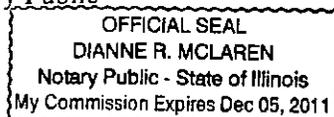
Sincerely,

  
Dr. Ty Stein

SUBSCRIBED and SWORN to before me  
this 17<sup>th</sup> day of December 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Fox Valley Internal Medicine, LLC  
650 Dakota St., Ste. A,  
Crystal Lake, IL 60012

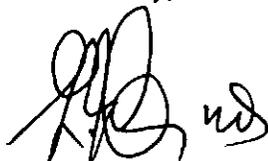
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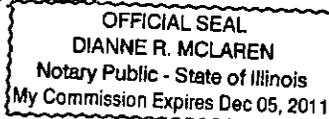


Dr. George Urban

SUBSCRIBED and SWORN to before me  
this 17<sup>th</sup> day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Fox Valley Internal Medicine, LLC  
650 Dakota St., Ste. A,  
Crystal Lake, IL 60012

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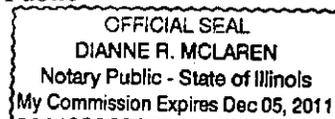


Dr. Jeffrey Tomlin

SUBSCRIBED and SWORN to before me  
this 17<sup>th</sup> day of December 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Fox Valley Internal Medicine, LLC  
650 Dakota St., Ste. A,  
Crystal Lake, IL 60012

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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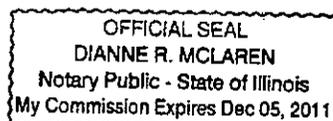


Dr. Thomas Salvi

SUBSCRIBED and SWORN to before me  
this 17<sup>th</sup> day of December 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Fox Valley Internal Medicine, LLC  
650 Dakota St., Ste. A,  
Crystal Lake, IL 60012

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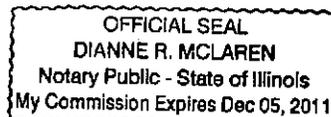


Dr. Bonnie Bremer

SUBSCRIBED and SWORN to before me  
this 17 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Pulmonary Medicine. My primary office is located at:

Pulmonary & Sleep Medicine Clinic-Algonquin  
2971 W. Algonquin Rd., Ste. 104,  
Algonquin, IL 60102

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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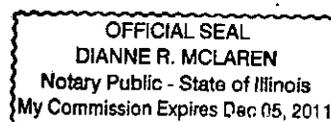


Dr. Firas Dairi

SUBSCRIBED and SWORN to before me  
this 17<sup>th</sup> day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Ifzal K. Bangash, MD  
4314 W. Crystal Lake Rd., Ste. D,  
McHenry, IL 60050

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,



Dr. Ifzal Bangash

SUBSCRIBED and SWORN to before me  
this 16 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Surgery, Cardio-Thoracic. My primary office is located at:

Cardiac Surgery Associates, S.C.-McHenry  
4309 Medical Center Dr., Ste. A200,  
McHenry, IL 60050

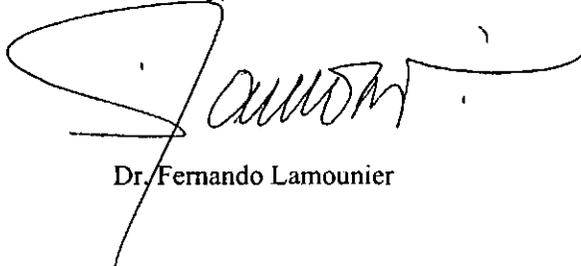
I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

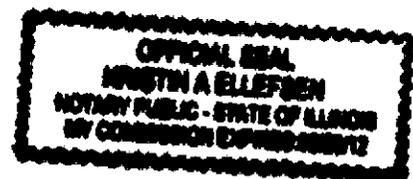


Dr. Fernando Lamounier

SUBSCRIBED and SWORN to before me  
this 16<sup>th</sup> day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Oncology/Hematology. My primary office is located at:

Fox Valley Hematology & Oncology Assoc.-McHenry  
4305 Medical Center Dr., Ste. 2, Sage Cancer Center  
McHenry, IL 60050

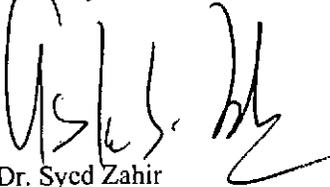
I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

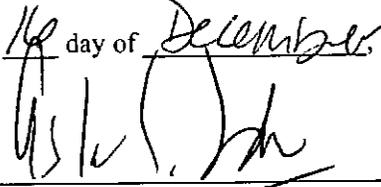
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I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

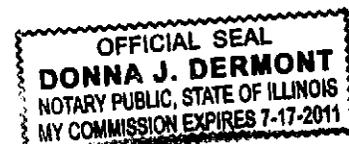
Sincerely,

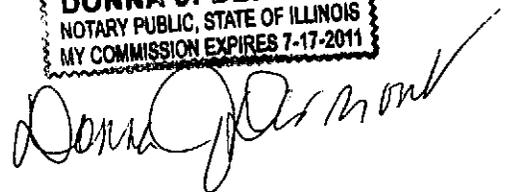
  
Dr. Syed Zahir

SUBSCRIBED and SWORN to before me  
this 14 day of December, 2010.



Notary Public





Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Woodstock Integrative Medicine  
1664 S. Eastwood Dr.,  
Woodstock, IL 60098

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

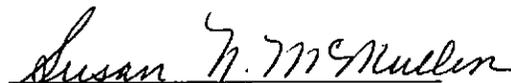
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

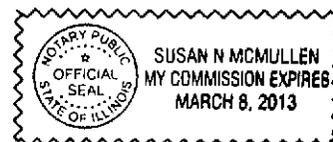


Dr. Susan Rychlik

SUBSCRIBED and SWORN to before me  
this 17<sup>th</sup> day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Cardiology. My primary office is located at:

Paresh A. Rawal, MD  
3703 Doty Rd., Ste. 4,  
Woodstock, IL 60098

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

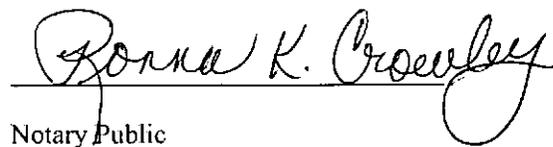
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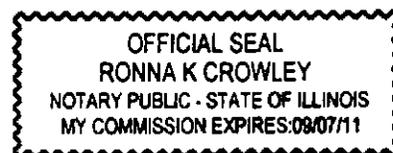
Sincerely,

  
12/17/10

Dr. Paresh Rawal

SUBSCRIBED and SWORN to before me  
this 17 day of DECEMBER, 2010.

  
Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Tanveer Ahmad, MD-Woodstock  
335 W. Blakely, Ste. A,  
Woodstock, IL 60098

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

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Sincerely,

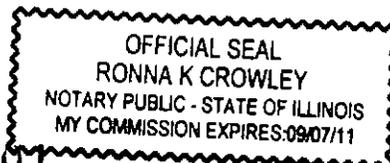


Dr. Tanveer Ahmad

SUBSCRIBED and SWORN to before me  
this 21 day of DECEMBER, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Oncology/Hematology. My primary office is located at:

Fox Valley Hematology & Oncology Assoc.-Elgin  
1710 N. Randall Rd., Ste. 300,  
Elgin, IL 60123

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

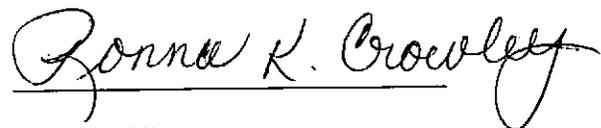
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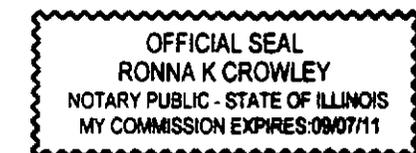
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

  
Dr. Apurva Desai

SUBSCRIBED and SWORN to before me  
this 16 day of DECEMBER, 2010.

  
Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Oncology/Hematology. My primary office is located at:

Fox Valley Hematology & Oncology Assoc.-Elgin  
1710 N. Randall Rd., Ste. 300,  
Elgin, IL 60123

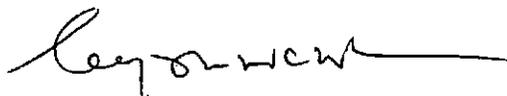
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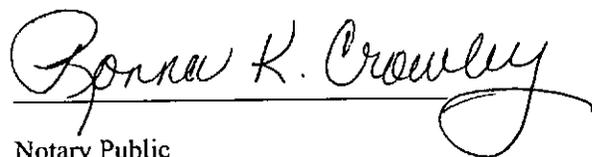
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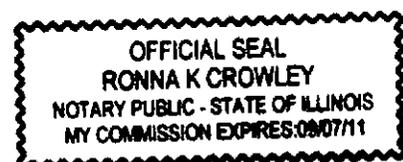


Dr. Chilakamarri Yeshwant

SUBSCRIBED and SWORN to before me  
this 16<sup>th</sup> day of DECEMBER, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Urology. My primary office is located at:

Comprehensive Urologic Care, SC-Lake Barrington  
22285 Pepper Rd., Bldg 200, Ste. 201,  
Lake Barrington, IL 60010

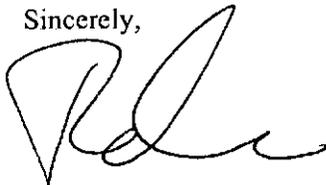
I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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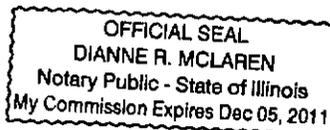


Dr. Tamra Lewis

SUBSCRIBED and SWORN to before me  
this 17<sup>th</sup> day of December 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Urology. My primary office is located at:

Comprehensive Urologic Care, SC-Lake Barrington  
22285 Pepper Rd., Bldg 200, Ste. 201,  
Lake Barrington, IL 60010

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

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Sincerely,

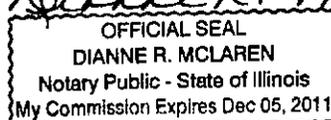
Dr. David Goldrath

SUBSCRIBED and SWORN to before me  
this 16th day of December, 2010.

Dianne R. McLaren M.P.

Notary Public

December 16, 2010  
Dianne R. McLaren



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Urology. My primary office is located at:

Comprehensive Urologic Care, SC-Lake Barrington  
22285 Pepper Rd., Bldg 200, Ste. 201,  
Lake Barrington, IL 60010

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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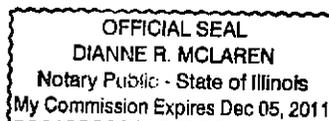


Dr. Richard Troy

SUBSCRIBED and SWORN to before me  
this 16<sup>th</sup> day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Urology. My primary office is located at:

Comprehensive Urologic Care, SC-Lake Barrington  
22285 Pepper Rd., Bldg 200, Ste. 201,  
Lake Barrington, IL 60010

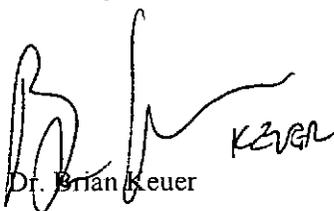
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I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

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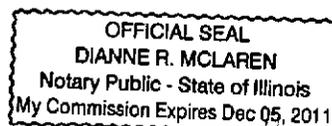
Sincerely,

  
Dr. Brian Keuer

SUBSCRIBED and SWORN to before me  
this 16<sup>th</sup> day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Urology. My primary office is located at:

Comprehensive Urologic Care, SC-Lake Barrington  
22285 Pepper Rd., Bldg 200, Ste. 201,  
Lake Barrington, IL 60010

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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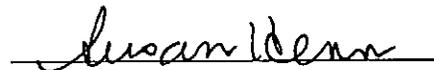
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,



Dr. Ning Wu

SUBSCRIBED and SWORN to before me  
this 15 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Dermatology. My primary office is located at:

Mohs Surgery & Dermatology Center  
1750 N. Randall Rd., Ste. 120,  
Elgin, IL 60123

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

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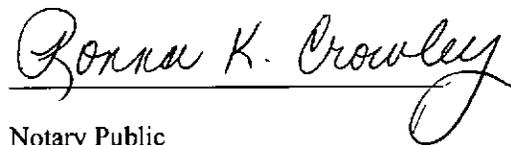
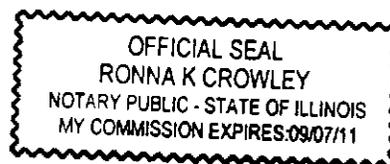
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,



Dr. Suleman Bangash

SUBSCRIBED and SWORN to before me  
this 22 day of DECEMBER, 2010.

  
\_\_\_\_\_  
Notary Public

Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Oncology/Hematology. My primary office is located at:

Fox Valley Hematology & Oncology Assoc.-Elgin  
1710 N. Randall Rd., Ste. 300,  
Elgin, IL 60123

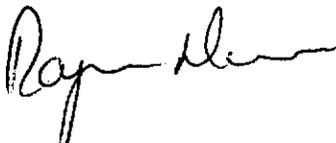
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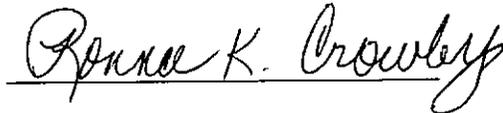
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

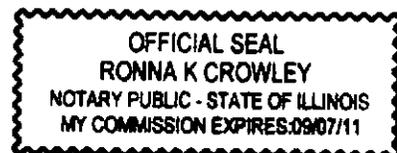


Dr. Rajini Manjunath

SUBSCRIBED and SWORN to before me  
this 16 day of DECEMBER, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Oncology/Hematology. My primary office is located at:

Fox Valley Hematology & Oncology Assoc.-Elgin  
1710 N. Randall Rd., Ste. 300,  
Elgin, IL 60123

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

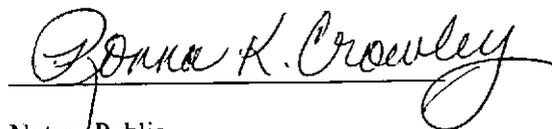
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Sincerely,

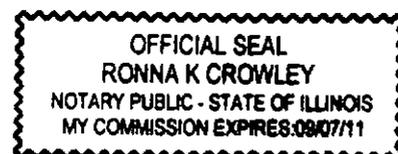


Dr. Stanley Nabrinsky

SUBSCRIBED and SWORN to before me  
this 16 day of DECEMBER, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Obstetrics and Gynecology. My primary office is located at:

Centegra Primary Care, Huntley  
10350 Haligus Rd., Suite 200  
Huntley, IL 60142

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

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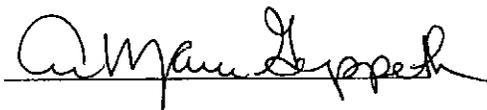
Sincerely,



Dr. Yvonne Yao

SUBSCRIBED and SWORN to before me

this 18 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is OB/GYN. My primary office is located at:

Centegra Primary Care, Huntley  
10350 Haligus Rd., Suite 200  
Huntley, IL 60142

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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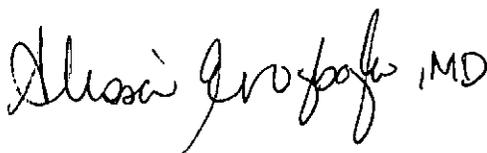
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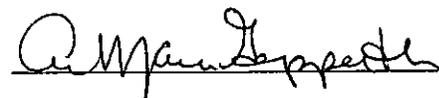
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

SUBSCRIBED and SWORN to before me  
this 18 day of December, 2010.

Dr. Alissa Erogbogbo

 MD

  
Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Obstetrics and Gynecology. My primary office is located at:

Centegra Primary Care, Crystal Lake  
360 Station Dr,  
Crystal Lake, IL 60014

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,



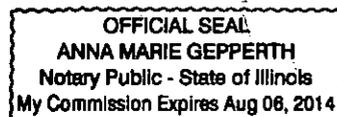
Dr. Shannon Watley

SUBSCRIBED and SWORN to before me

this 18 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is OB/GYN. My primary office is located at:

Centegra Primary Care, McHenry  
4309 Medical Center Dr  
McHenry, IL 60050

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

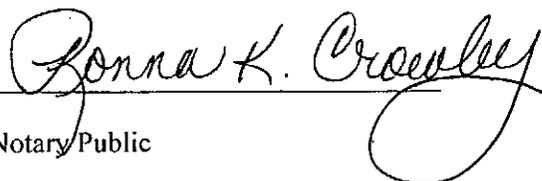
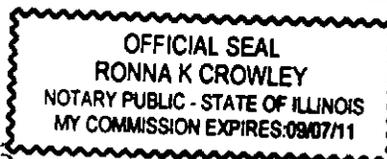
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,



Dr. Leonard Hering

SUBSCRIBED and SWORN to before me  
this 21 day of DECEMBER, 2010.

  
\_\_\_\_\_  
Notary Public

Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Obstetric and Gynecology. My primary office is located at:

Centegra Primary Care, Woodstock MOB I  
3703 Doty Rd  
Woodstock, IL 60098

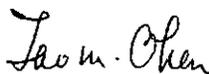
I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

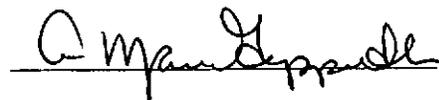
Sincerely,



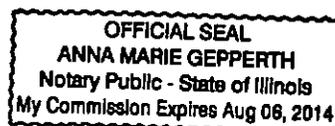
Dr. Tao Chen

SUBSCRIBED and SWORN to before me

this 20 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Internal Medicine. My primary office is located at:

Centegra Primary Care, Woodstock MOB2  
3707 Doty Rd  
Woodstock, IL 60098

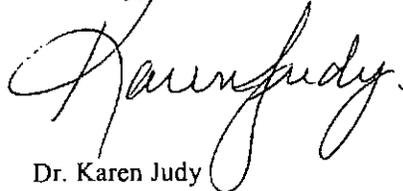
I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

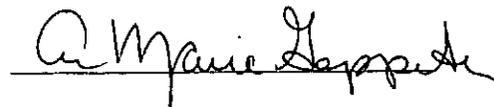
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

  
Dr. Karen Judy

SUBSCRIBED and SWORN to before me

this 18 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Family Practice. My primary office is located at:

Centegra Primary Care, Woodstock MOB2  
3707 Doty Rd  
Woodstock, IL 60098

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,



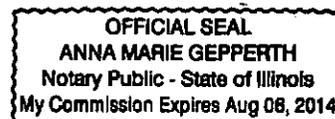
Dr. Lisa Glosson

SUBSCRIBED and SWORN to before me

this 18 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Obstetric and Gynecology. My primary office is located at:

Centegra Primary Care, Woodstock MOB1  
3703 Doty Rd  
Woodstock, IL 60098

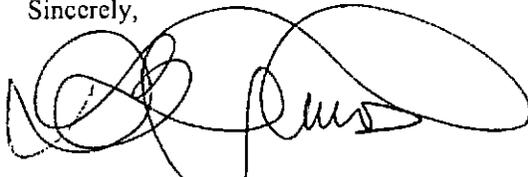
I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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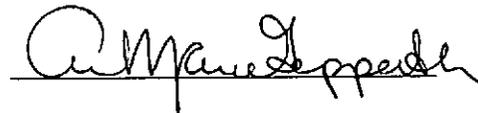
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,



Dr. Dudley Brown

SUBSCRIBED and SWORN to before me  
this 18 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Hospitalist. My primary office is located at:

Centegra Primary Care, McHenry  
4309 Medical Center Dr  
McHenry, IL 60050

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

I understand that Centegra Hospital – Huntley is expected to become operational at the end of 2015. I expect that between now and June, 2018, which will mark the completion of the first two full fiscal years of operation of Centegra Hospital – Huntley, my practice will grow at least commensurate with the expected population increase in the area.

I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

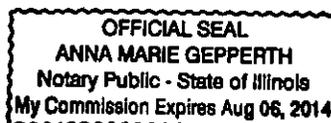


Dr. Kumar Nathan

SUBSCRIBED and SWORN to before me  
this 20 day of December, 2010.



Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Hospitalist. My primary office is located at:

Centegra Primary Care, McHenry  
4309 Medical Center Dr  
McHenry, IL 60050

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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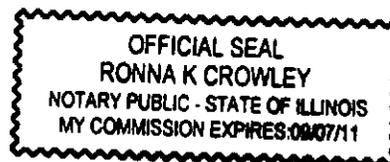
Dr. Prashant Sura



SUBSCRIBED and SWORN to before me

this 21 day of DECEMBER, 2010.

  
Notary Public



Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Neonatology. My primary office is located at:

Wellcare Neonatologists  
4201 Medical Center Dr., OB/Nursery  
McHenry, IL 60050

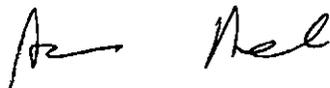
I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

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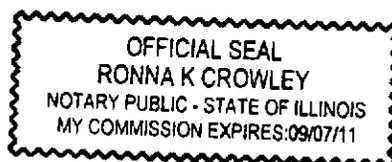
I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,



Dr. Ashok Mehta

SUBSCRIBED and SWORN to before me  
this 22 day of DECEMBER, 2010.

  
Notary Public

Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Radiation/Oncology. My primary office is located at:

Midwest Radiation Oncology Consultants, Ltd.  
Centegra Sage Cancer Center, 4305 Medical Center Dr.  
McHenry, IL 60050

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

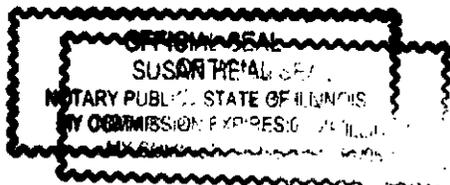
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I verify by my signature below that I have not committed patient referrals to support another pending CON application or open CON project for the subject services.

Sincerely,

*Terrence J. Bugno MD*

Dr. Terrence Bugno



SUBSCRIBED and SWORN to before me  
this 6 day of December, 2010.

*Susan Hermal*

Notary Public

Illinois Health Facilities Services and Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

**Re: Centegra Hospital – Huntley**

Dear Sir or Madam,

I am submitting this physician referral letter in support of the application for permit of Centegra Health System and Centegra Hospital – Huntley to establish a new acute general hospital in Huntley, Illinois.

My physician specialty is Radiation/Oncology. My primary office is located at:

Midwest Radiation Oncology Consultants, Ltd.  
Centegra Sage Cancer Center, 4305 Medical Center Dr.  
McHenry, IL 60050

I am a member of the active medical staff at Centegra Hospital – McHenry and/or Centegra Hospital – Woodstock, and I care for patients who reside in McHenry County and nearby zip codes that constitute the market area for Centegra Hospital - Huntley.

I strongly support the establishment of the proposed new hospital in Huntley and would refer patients to Centegra Hospital – Huntley.

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Sincerely,

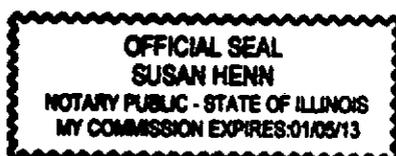
*Geoffrey Z. Smoron M.D.*

Dr. Geoffrey Smoron

SUBSCRIBED and SWORN to before me  
this 16 day of December, 2010.

*Susan Henn*

Notary Public



VII.R.3.(b)

Service Specific Review Criteria: Clinical Service Areas Other than Categories of Service:  
New Facility

This project proposes the establishment of a new hospital in Planning Area (P.A.) A-10, McHenry County. The new hospital will be named Centegra Hospital - Huntley.

The project includes the following Clinical Service Areas that are not Categories of Service.

Surgery  
Post-Anesthesia Recovery (PACU, Recovery)  
Surgical Prep (for both A.M. Admits and Same-Day Surgery Patients) and  
Stage II Recovery  
Endoscopy  
Emergency Department  
Diagnostic Imaging (Radiology, Radiography/Fluoroscopy, Ultrasound,  
CT Scanning, MRI Scanning, Nuclear Medicine)  
Labor/Delivery/Recovery Suite  
C-Section Suite  
Newborn Nurseries (Level I, Level II)  
Inpatient Physical Therapy/Occupational Therapy  
Non-Invasive Diagnostic Cardiology } These Services share support areas and  
Neurodiagnostics } are, therefore, shown as 1 department for  
Pulmonary Function Testing } square footage purposes  
Respiratory Therapy  
Pre-Admission Testing  
Inpatient Acute Dialysis  
Clinical Laboratory, including Morgue  
Pharmacy  
Central Sterile Processing/Distribution  
Dietary

It should be noted that only the following Clinical Service Areas included in this project are listed in 77 Ill. Adm. Code 1110.3030.a)1) as being subject to this Attachment, although utilization standards for some of the other Clinical Service Areas are listed in 77 Ill. Adm. Code 1110.APPENDIX B.

Surgery  
Emergency Services  
Diagnostic Radiology/Imaging (by modality)  
Laboratory  
Pharmacy  
Occupational Therapy/Physical Therapy

This project includes the following Clinical Service Areas for which the Illinois certificate of need (CON) Rules include State Guidelines (77 Ill. Adm. Code 1110.APPENDIX B).

- Surgery (State Guidelines identify this as "Surgical Operating Suite (Class C)")
- Post-Anesthesia Recovery Phase I (PACU, Recovery)
- Post-Anesthesia Recovery Phase II (State Guidelines do not include Surgical Prep.)
- Endoscopy (State Guidelines identify this as "Surgical Procedure Suite (Class B)")
- Emergency Department
- Diagnostic Imaging (Radiology, Radiography/Fluoroscopy, Ultrasound, CT Scanning, MRI Scanning, Nuclear Medicine)
- Labor/Delivery/Recovery Suite
- C-Section Suite
- Newborn Nurseries (Level I, Level II)

There are no State guidelines (77 Ill. Adm. Code 1110.APPENDIX B) for the balance of the Clinical Service Areas that are included in this project. These Clinical Service Areas are listed below.

- Inpatient Physical Therapy/Occupational Therapy
- Non-Invasive Diagnostic Cardiology
- Neurodiagnostics
- Pulmonary Function Testing
- Respiratory Therapy
- Pre-Admission Testing
- Inpatient Acute Dialysis
- Clinical Laboratory, including Morgue
- Pharmacy
- Central Sterile Processing/Distribution
- Dietary

All of these Clinical Service Areas are necessary for the operation of Centegra Hospital - Huntley and most of them are required for hospital licensure, as identified in 77 Ill. Adm. Code 250 (Illinois Hospital Licensing Requirements).

1. Criterion 1110.3030.(b)(1) - Service to the Planning Area Residents
  - A. The primary purpose of this project is to serve residents of Planning Area A-10 (McHenry County), the planning area in which Centegra Hospital - Huntley will be physically located and, in particular, to the geographic

service area (identified as the market area) for Centegra Hospital - Huntley.

Centegra Hospital - Huntley will be located in McHenry County, and a majority of the population that the hospital is proposing to serve during FY18, the second full year when the hospital will be operational, will be residents of McHenry County.

That is because a majority of the residents of the market area that is designated for Centegra Hospital - Huntley during FY18 will be residents of McHenry County.

The market area for Centegra Hospital - Huntley includes both Primary and Secondary Service Areas. A map of the market area is found on Page 20 of this Attachment. This map is also found in the Market Assessment and Impact Study of Centegra Hospital - Huntley, prepared by Deloitte Financial Advisory Services, LLP, which is found in Appendix A beginning on Page 21 of this Attachment.

The market area for Centegra Hospital - Huntley consists of the following zip codes.

- Primary Service Area:

<u>Zip Code</u>	<u>Key Town</u>
60142	Huntley
60156	Lake in the Hills
60014	Crystal Lake
60102	Algonquin
60152	Marengo
60140	Hampshire
60110	Carpentersville
60180	Union
60118	Dundee
60136	Gilberts

- Secondary Service Area:

<u>Zip Code</u>	<u>Key Town</u>
60098	Woodstock
60013	Cary
60012	Crystal Lake
60039	Crystal Lake
60010	Barrington
60021	Fox River Grove

This market area is predominantly located within Planning Area A-10, and much of the market area is within the service area for Centegra Health System's primary care facilities in Huntley, which are located in the Centegra Ambulatory Center in Huntley that is on the same site as the proposed hospital. Construction of the Centegra Ambulatory Center in Huntley (originally named the Ambulatory Care Mall) was approved under Permit Number 07-015, which was granted a CON permit in June, 2007.

The market area selected for Centegra Hospital - Huntley is largely consistent with patient origin that has been experienced at the Centegra Ambulatory Center in Huntley. Patient origin for the Immediate Care Center and primary care physicians' offices at the Centegra Ambulatory Center in Huntley during FY10 (July 1, 2009 through June 30, 2010), which is provided below, indicates that the following zip codes constituted the market area for these programs, accounting for more than 85% of the patients seen at these facilities.

PATIENT ORIGIN FOR PATIENTS AT FACILITIES IN  
CENTEGRA AMBULATORY CENTER IN HUNTLEY

<u>Zip Code</u>	<u>Key Town</u>	<u>July 1, 2009 - June 30, 2010</u>	
		<u>% of Total Patients</u>	
		<u>Immed. Care Center</u>	<u>Physician Offices</u>
60142	Huntley*	42.6%	34.3%
60156	Lake in the Hills*	20.4%	12.9%
60014	Crystal Lake*	8.2%	8.5%
60102	Algonquin*	6.2%	7.1%
60152	Marengo*	3.9%	4.9%
60098	Woodstock**	3.3%	8.7%
60140	Hampshire*	2.9%	2.8%
60110	Carpentersville*	1.3%	1.9%
60180	Union*	1.2%	1.1%
60118	Dundee*	0.7%	1.1%
60013	Cary**	0.6%	1.4%
60136	Gilberts*	0.5%	0.7%
60012	Crystal Lake**	<u>0.2%</u>	<u>1.0%</u>
		91.9%	86.5%

\*This zip code is in Centegra Hospital - Huntley's Primary Service Area

\*\*This zip code is in Centegra Hospital - Huntley's Secondary Service Area

The high utilization of the services at the Centegra Ambulatory Center in Huntley demonstrates that a majority of patients projected to be seen at

Centegra Hospital - Huntley are residents of the market area. Furthermore, it is projected that a majority of the patients are projected to be residents of Planning Area A- 10, McHenry County, which is the planning area in which the project is located.

As discussed in Attachments 12 and 20, it should be noted that the market area selected for Centegra Hospital - Huntley is unique in patient origin in comparison to the inpatient origin that has been experienced at the other general acute care hospitals located in McHenry County: Centegra Hospital - McHenry; Centegra Hospital - Woodstock; and Mercy Harvard Memorial Hospital, which is a Critical Access Hospital. Patient origin presented for these hospitals in Attachments 12 and 20 document the uniqueness of the market area for Centegra Hospital - Huntley.

Notwithstanding the fact that the primary purpose for the establishment of Centegra Hospital - Huntley is to provide care to residents of McHenry County, it should be noted that the hospital's market area includes portions of adjacent planning areas.

The inclusion of portions of adjacent planning areas within the market area for Centegra Hospital - Huntley is due to the following reasons.

- The site for Centegra Hospital - Huntley, which is also the site of Centegra Ambulatory Center in Huntley, is located only 2 miles from the Kane County border.
- Several of the zip codes in the primary and secondary service areas are located in two or more planning areas because they include multiple counties.

Primary Service Area:

<u>Zip Code</u>	<u>Key Town</u>	<u>Counties</u>
60142	Huntley	McHenry, Kane
60102	Algonquin	McHenry, Kane
60118	Dundee	Kane, Cook
60140	Hampshire	Kane, DeKalb

Secondary Service Area:

<u>Zip Code</u>	<u>Key Town</u>	<u>Counties</u>
60010	Barrington	McHenry, Kane, Lake, Cook
60013	Cary	McHenry, Lake
60021	Fox River Grove	McHenry, Lake

The purpose of this project is to serve residents of the market area, the majority population of which is located in McHenry County. To the extent that the market area includes zip codes that are located in whole or in part outside of the planning area, the purpose of the project is to provide care to these residents of the market area as well.

- B. This project is proposed to meet Planning Area Need, as stated in 77 Ill. Adm. Code 1100.520, 1100.530, and 1100.540 and review criterion 77 Ill. Adm. Code 1110.530.b)1) and to address the review criterion of Project Service Demand - Based on Rapid Population Growth (77 Ill. Adm. Code 1110.530.b)3)C).

Documentation of this project's compliance with these review criteria is found in Attachment 20, and it would be redundant to repeat that entire lengthy Attachment in this Attachment.

The sole reason for proposing to construct new Clinical Service Areas that are not Categories of Service is because these Clinical Service Areas are necessary for the licensure and operation of a hospital. The establishment of the hospital is justified by the need to establish the Categories of Service (i.e., Medical-Surgical, Intensive Care, and Obstetric Categories of Service), as discussed in Attachment 20.

- 2.A. Criterion 1110.3030.(b)(2)(A) Service Demand - Referrals from Inpatient Base

The proposed Clinical Service Areas are needed to serve proposed inpatient Categories of Service in a licensed hospital, Centegra Hospital - Huntley.

Although this Rule states that this justification of Service Demand is for the justification of Clinical Service Areas "that will serve as a support or adjunct service to existing inpatient services," this review criterion is applicable to this project because, as stated above, the proposed Clinical Service Areas are needed to serve the proposed inpatient Categories of Service (i.e., Medical-Surgical, Intensive Care, Obstetric Categories of Service) in Centegra Hospital - Huntley.

Because this project proposes the establishment of a new hospital, the Clinical Service Areas do not have any historical volume.

The projected volume for each of the Clinical Service Areas that are not Categories of Service is presented below.

In some cases, outpatients will also be served in these Clinical Service Areas.

However, since Centegra Hospital - Huntley will not become operational for 5 years, and its second full year of operation will not begin for 6 ½ years (Fiscal Year 18 will begin on July 1, 2017), it is not possible to provide physician referrals that far in the future. The physician referral letters found in Appendix B of Attachment 20 document the support for the establishment of Centegra Hospital - Huntley and the physicians' desire to refer patients to this hospital for inpatient care. The inpatients referred to Centegra Hospital - Huntley will also require care in the Clinical Service Areas that this hospital will provide.

Space Programs for each of the Clinical Service Areas are found in Attachment 14 of this CON application.

<u>Service</u>	<u>State Norm units/room</u>	<u>2018 Volume (2<sup>nd</sup> full year of operation)</u>	<u>Total Rooms Justified</u>	<u>Total Proposed Rooms</u>
Surgery	1,500 Hours/OR	11,169 Hours	8	8
Recovery (PACU)	min. 1/OR	N/A	Minimum of 8	8
Surgical Prep and Stage II Recovery	Stage II Recovery: min. 4/OR (may include PACU stations)	N/A	Min. of 32	32
Endoscopy	1,500 Hours/ Procedure Room	2,899 Hours	2	2
Emergency Department	2,000 Visits/ Treatment Station	30,586 Visits	16	13

<u>Service</u>	<u>State Norm units/room</u>	<u>2018 Volume (2<sup>nd</sup> full year of operation)</u>	<u>Total Rooms Justified</u>	<u>Total Proposed Rooms</u>
Diagnostic Imaging				
General Radiology	8,000 Proc./Unit	9,571 Proc.	2	2
Radiology/Fluoroscopy	6,500 Proc./Unit	7,128 Rad. + 648 Fluro. = 7,776 Proc.	2	1
Ultrasound	3,100 Visits/Unit	3,709 Visits	2	2
CT Scanning	7,000 Visits/Unit	4,187 Visits	1	1
MRI	2,500 Proc./Unit	2,743 Proc.	2	1
Nuclear Medicine	2,000 Visits/Unit	988 Visits	1	1
TOTAL Diagnostic Imaging			10	8
Labor/Delivery/ Recovery Suite	400 Births/LDR	2,022 Births	6	6
C-Section Suite	800 Proc./ Room	819 Proc.	2	2
Newborn Nurseries (Levels I & II)	N/A	N/A	N/A	14 stations

\*N/A refers to there being no State Norm for number of rooms

The assumptions underlying the utilization for these Clinical Service Areas are as follows, beginning on the next page of this Attachment. These assumptions were prepared by Deloitte Financial Advisory Services, LLP, and they are found in their "Market Analysis and Impact Study of Centegra Hospital - Huntley," which is appended to this Attachment and identified as Appendix A.

### Medical-Surgical Category of Service

1. Using COMPdata via Intellimed, current Medical-Surgical volumes and Intensive Care volumes (i.e., number of cases and patient days) in the project's Primary Service Area (PSA) and Secondary Service Area (SSA) were analyzed by zip code by MS-DRG, age cohort and payor.
2. Projected 2018 cases and patient days for the Centegra Hospital - Huntley's PSA and SSA were projected, based upon Claritas population projections via Intellimed for the 2010-2015 period by zip code and age cohort.
3. Centegra Hospital - Huntley's estimated market share by zip code for the Medical-Surgical and Intensive Care Services was estimated, based upon Centegra Health System's historical caseload by zip code in the PSA and SSA for its existing hospitals.
4. The percentage of the existing market at Centegra Hospital - McHenry and Centegra Hospital - Woodstock that would be admitted to Centegra Hospital - Huntley was determined, based upon the assumption that a portion of the existing cases by zip code in the PSA would move to the new hospital because of the proximity of a zip code to the Huntley site.

The percentage of the existing market that would remain at existing Centegra hospitals was determined based on the methodology provided in the previous paragraph.

5. The impact of projected population growth in the PSA and SSA by the first two full years of operation of Centegra Hospital - Huntley was estimated by using Claritas' projection of population growth via Intellimed by zip code and age cohort.
6. Centegra Hospital - Huntley's market share for Medical-Surgical and Intensive Care admissions in the PSA and SSA was estimated to be 17.4% during the first full year of operation of the hospital's operation (FY17). This market share was estimated to increase to 22.8% in the second full year of the hospital's operation (FY18).
7. The projected Medical-Surgical and Intensive Care cases and patient days in FY18 were assumed to increase in comparison to the projected Medical-Surgical and Intensive Care cases and patient days in FY17 due to the "ramp up" of services after Centegra Hospital - Huntley becomes operational. The number of cases in FY17 are estimated to be 73.7% of the cases in FY18.

8. 8.2% and 7.6% of Centegra Hospital - Huntley's estimated Medical-Surgical patient days for both FY17 and FY18 respectively were removed because these patient days were estimated to constitute the utilization of the Intensive Care Unit.

#### Intensive Care Category of Service

After the estimated Medical-Surgical patient days were calculated, as described in the preceding section, 8.2% and 7.6% of Centegra Hospital - Huntley's Medical-Surgical patient days for both FY17 and FY18 respectively were removed from the projected utilization of the Medical-Surgical Category of Service.

These patient days are estimated to constitute the utilization of Centegra Hospital - Huntley's Intensive Care Category of Service.

#### Obstetric Category of Service

1. Using COMPdata via Intellimed, current Obstetric volumes (i.e., number of cases and patient days) in the project's Primary Service Area (PSA) and Secondary Service Area (SSA) were analyzed by zip code by MS-DRG, age cohort and payor.
2. Projected 2018 cases and patient days for the Centegra Hospital - Huntley's PSA and SSA were projected, based upon Claritas population projections via Intellimed for the 2010-2015 period by zip code and age cohort.
3. Centegra Hospital - Huntley's estimated market share by zip code for the Obstetric Service was estimated, based upon Centegra Health System's historical caseload by zip code experience in the PSA and SSA for its existing hospitals and to address the bed need as identified by the Illinois Health Facilities and Services Review Board.
4. The percentage of the existing market at Centegra Hospital - McHenry and Centegra Hospital - Woodstock that would be admitted to Centegra Hospital - Huntley was determined, based upon the assumption that a portion of the existing cases in the PSA would move to the new hospital because of the proximity of a zip code to the Huntley site.

The percentage of the existing market that would remain at existing Centegra hospitals was determined based on the methodology provided in the previous paragraph.

5. The impact of projected population growth in the PSA and SSA by the first two full years of operation of Centegra Hospital - Huntley was estimated by using Claritas' projection of population growth via Intellimed by zip code and age cohort.
6. Centegra Hospital - Huntley's market share for Obstetric admissions in the PSA and SSA was estimated to be 27.8% during the first full year of operation of the hospital's operation (FY17). This market share was estimated to increase to 36.7% in the second full year of the hospital's operation (FY18).
7. The projected Obstetric cases and patient days in FY18 were assumed to increase in comparison to the projected Obstetric cases and patient days in FY17 due to the "ramp up" of services after Centegra Hospital - Huntley becomes operational. The number of cases in FY17 are estimated to be 74.8% of the cases in FY18.

#### Surgery

1. The number of Surgical cases was determined by using the following assumptions.
  - a. The total number of inpatient Surgical cases was estimated to be 22.68% of total estimated inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.
  - b. The total number of outpatient Surgical cases was estimated to be 3.93% of total outpatient visits.

The estimated total number of outpatient visits was calculated at 14.68 outpatient visits per inpatient admission. This ratio is based upon the ratio of outpatient visits to inpatient admissions that is experienced at Centegra Hospital - McHenry.
  - c. Because of the competition in the Surgery Service in the market area, the projected number of surgery cases was reduced to 90% of the projected number of both inpatient and outpatient cases that was calculated in a. and b. above.

2. Surgical hours were determined based upon the following assumptions.
  - a. Inpatient Surgical cases will average 2.17 hours (130 minutes) including clean-up and set-up time, based on historic experience at Centegra Hospital - McHenry.
  - b. Outpatient Surgical cases will average 1.15 hours (69 minutes) including clean-up and set-up time), based on historic experience at Centegra Hospital - McHenry.

#### Endoscopy

1. The number of Endoscopy cases was determined by using the following assumptions.
  - a. The total number of inpatient Endoscopy cases was estimated to be 11.35% of total estimated inpatient admissions.  
  
The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.
  - b. The total number of outpatient Endoscopy cases was estimated to be 2.3% of total outpatient visits.  
  
The estimated total number of outpatient visits was calculated at 14.68 outpatient visits per inpatient admission. This ratio is based upon the ratio of outpatient visits to inpatient admissions that is experienced at Centegra Hospital - McHenry.
  - c. Because of the competition in the Endoscopy Service in the market area, the projected number of endoscopy cases was reduced to 70% of the projected number of both inpatient and outpatient cases that was calculated in a. and b. above.
2. Endoscopy hours were determined based upon the following assumptions.
  - a. Inpatient Endoscopy cases will average 0.858 hours (51.48 minutes) including clean-up and set-up time, based on historic experience at Centegra Hospital - McHenry.

- b. Outpatient Endoscopy cases will average 0.847 hours (50.81 minutes) including clean-up and set-up time), based on historic experience at Centegra Hospital - McHenry.

#### Emergency

The number of Emergency visits was determined by using the following assumptions.

1. 65.1% of inpatient admissions at Centegra Hospital - Huntley will be directly from the hospital's Emergency Department.
2. There will be 3.14 outpatient visits in the Emergency Room for each inpatient admission to the hospital.
3. Because of the competition for Emergency Services in the market area, the projected number of Emergency cases was reduced to 75% of the projected number of both inpatient and outpatient cases that was calculated in 1. and 2. above.

#### Diagnostic Imaging: Radiology and Fluoroscopy

The number of Radiology and Fluoroscopy procedures was determined by using the following assumptions.

1. The total number of inpatient Radiology and Fluoroscopy procedures was estimated to be 161 procedures per 100 inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

#### Diagnostic Imaging: Ultrasound

The number of Ultrasound visits was determined by using the following assumptions.

1. The total number of inpatient Ultrasound visits was estimated to be 14.12% of total estimated inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

2. The total number of outpatient Ultrasound visits was estimated to be 1.3% of total outpatient visits.

The estimated total number of outpatient visits was calculated at 14.68 outpatient visits per inpatient admission. This ratio is based upon the ratio of outpatient visits to inpatient admissions that is experienced at Centegra Hospital - McHenry.

#### Diagnostic Imaging: CT Scanning

The number of CT visits was determined by using the following assumptions.

1. The CT Scanner at Centegra Hospital - Huntley will be used only for inpatient scanning. The CT Scanner at Centegra Ambulatory Center in Huntley, which is adjacent to the proposed hospital, will continue to be used for all outpatient CT scanning at this site.
2. The total number of inpatient CT visits was estimated by assuming that 38.9% of the hospital's inpatient admissions would have an average of 1.92 CT procedures.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

#### Diagnostic Imaging: MRI

The number of MRI procedures was determined by using the following assumptions.

1. The MRI Scanner at Centegra Hospital - Huntley will be used for both inpatient and outpatient scanning.
2. The total number of inpatient MRI procedures was estimated to be 12.94% of total estimated inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

3. The total number of outpatient MRI procedures was estimated to be 2.01% of total outpatient visits.

The estimated total number of outpatient visits was calculated at 14.68 outpatient visits per inpatient admission. This ratio is based upon the ratio of outpatient visits to inpatient admissions that is experienced at Centegra Hospital - McHenry.

4. Because of the competition for MRI scanning in the market area, the projected number of MRI procedures was reduced to 60% of the projected number of both inpatient and outpatient cases that was calculated in 2. and 3. above.

#### Diagnostic Imaging: Nuclear Medicine

The total number of Nuclear Medicine visits was estimated to be 9.18% of total estimated inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

#### Labor/Delivery/Recovery

98% of all Obstetrical admissions will utilize the Labor/Delivery/Recovery Suite.

#### C-Section Suite

40.5% of all Obstetrical admissions will have a procedure in the C-Section Suite.

Source of Assumptions Underlying Projected Utilization for Clinical Service Areas:  
Deloitte Financial Advisory Services, LLP (December 19, 2010)

3. Criterion 1110.3030.(b)(3) - Impact of the Proposed Project on Other Area Providers

Centegra Hospital - Huntley will be located in Planning Area A-10. There are 3 existing hospitals that provide the Medical-Surgical, Intensive Care, and/or Obstetric Categories of Service in this Planning Area.

Centegra Hospital - McHenry  
Centegra Hospital - Woodstock  
Mercy Harvard Memorial Hospital, a Critical Access Hospital

Within 24 months after project completion, Centegra Hospital - Huntley will not do the following

- Lower the utilization of other area providers below the utilization standards specified in Appendix B
- Lower, to a further extent, the utilization of other area providers that are currently (during the latest 12-month period) operating below the utilization standards.

The lack of impact on current utilization of existing providers is due to the following.

- There will be Bed Need in Planning Area A-10 (McHenry County) by 2018 for all the beds proposed for Centegra Hospital - Huntley (i.e., 100 Medical-Surgical beds, 8 Intensive Care beds, 20 Obstetric beds).

As demonstrated in the Assumptions Underlying Projected Utilization, found earlier in this Attachment, the projected utilization for many of the Clinical Service Areas that are not Categories of Service is derived from the projected utilization of the inpatient Categories of Service.

Patients in the new hospital will require care in a variety of Clinical Service Areas, as documented in the projected utilization for these Clinical Service Areas that appears earlier in this Attachment.

- Population growth and the aging of the population projected to occur by mid-2018 for both Planning Area A-10 (McHenry County) and for the Market Area identified for Centegra Hospital - Huntley will increase existing utilization among all hospitals in the area currently providing Medical-Surgical, Intensive Care, and Obstetric Categories of Service as well as provide utilization for Centegra Hospital - Huntley.

As indicated above and demonstrated in the Assumptions Underlying Projected Utilization, found earlier in this Attachment, the projected utilization for many of the Clinical Service Areas that are not Categories of Service is derived from the projected utilization of the inpatient Categories of Service.

This rapid population growth will result in increased utilization of Clinical Service Areas in these hospitals as well.

- Therefore, based on the population growth projections and aging of the population, the establishment of Centegra Hospital - Huntley will not significantly impact current utilization in existing area hospitals.

Pages 6 and 7 of the Market Assessment and Impact Study includes a discussion of the lack of impact of the establishment of Centegra Hospital - Huntley on current inpatient bed utilization of existing area hospitals.

4. Utilization

The proposed number of key rooms for all Clinical Service Areas included in this project is within the State Guidelines (77 Ill. Adm. Code 1110.APPENDIX B).

In addition, the square footage proposed for each Clinical Service Area for which State Guidelines exist, which is shown below, is within the State Guidelines (77 Ill. Adm. Code 1110.APPENDIX B).

<u>Service</u>	<u>State Norm DGSF/room or unit</u>	<u>Total DGSF Justified per program</u>	<u>Total Proposed DGSF</u>
Surgery	2,750 DGSF/ Operating Rm.	22,000	21,525
Recovery (PACU)	180 DGSF/ Recovery Station	1,440	1,382
Surgical Prep and Stage II Recovery	400 DGSF/ Recovery Station	12,800	12,717
Endoscopy	1,100 DGSF/ Proc. Rm.	2,200	2,175
Emergency Department	900 DGSF/ Treatment Station	11,700	10,431
Diagnostic Imaging			
General Radiology	1,300 DGSF/ Unit	2,600	See
Radiology/Fluoroscopy	1,300 DGSF/ Unit	1,300	Total
Ultrasound	900 DGSF/Unit	1,800	for
CT Scanning	1,800 DGSF/ Unit	1,800	Diagnostic
MRI	1,800 DGSF/ Unit	1,800	Imaging
Nuclear Medicine	1,600 DGSF/ Unit	1,600	Department
TOTAL Diagnostic Imaging		10,900	10,785
Labor/Delivery/Recovery Suite	1,120-1,600 DGSF/Room	6,720-9,600	9,445
C-Section Suite	2,075/OR	4,150	4,026
Newborn Nurseries (Levels I & II)	160DGSF/OB Bed	3,200	3,167

<u>CLINICAL SERVICE AREAS</u>	<u>PROPOSED DGSF</u>	<u>STATE STANDARD</u>	<u>DIFFERENCE</u>	<u>MET STANDARD?</u>
Surgery	21,525 for 8 ORs	2,750/OR = 22,000	under by 475	Yes
Recovery (PACU)	1,382 for 8 Stations	180/Station = 1,440	under by 58	Yes
Surgical Prep & Stage II Recovery	12,717 for 32 Stations	400/Station = 12,800	under by 83	Yes
Endoscopy	2,175 for 2 Proc.Rms.	1,100/Proc. Rm. = 2,200	under by 25	Yes
Emergency	10,431 for 13 Treat. Rms.	900/Treat. Rm. = 11,700	under by 1,269	Yes
Diagnostic Imaging				
Gen. Rad.		2,600 for 2 Units		
Rad./Fluor.		1,300 for 1 Unit		
Ultrasound		1,800 for 2 Units		
CT Scanner		1,800 for 1 Unit		
MRI		1,800 for 1 Unit		
Nuclear Medicine		1,600 for 1 Unit		
TOTAL	10,785 for 8 Units	10,900 for 8 Units	under by 115	Yes

<b><u>CLINICAL SERVICE AREAS</u></b>	<b><u>PROPOSED DGSF</u></b>	<b><u>STATE STANDARD</u></b>	<b><u>DIFFERENCE</u></b>	<b><u>MET STANDARD?</u></b>
Labor/ Delivery/ Recovery Suite	9,445 for 6 LDRs	1,120- 1,600/LDR = 6,720-9,600	under by 155	Yes
C-Section Suite	4,026 for 2 ORs	2,075/OR = 4,150	under by 124	Yes
Newborn Nurseries (Levels I & II)	3,167 for 20 OB Beds	160/OB Bed = 3,200	under by 33	Yes



**APPENDIX A**

**MARKET ASSESSMENT AND IMPACT STUDY  
OF CENTEGRA HOSPITAL - HUNTLEY**

**Prepared by Deloitte Financial Advisory Services, LLP  
December 19, 2010**



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December 19, 2010

Aaron T. Shepley  
General Counsel, Senior Vice President Administrative Services  
Centegra Health System  
385 Millennium Drive  
Crystal Lake, IL 60012

Re: **Market Assessment and Impact Study of Centegra Hospital - Huntley**

Dear Mr. Shepley:

At your request, we have performed a market assessment and impact study of the planned Centegra Hospital – Huntley to be built in Huntley, Illinois. This letter summarizes the background, purpose, approach and methodologies associated with our analysis and presents key calculations and conclusions.

## **BACKGROUND**

Centegra is the sole corporate member of Centegra Hospital - McHenry, Centegra Hospital - Woodstock, and Centegra Specialty Hospital - Woodstock South Street. Today, Centegra is McHenry County's largest employer with nearly 4,000 Associates, 500 volunteers and more than 475 physicians on staff.

We understand that Centegra is proposing the establishment of an 128-bed acute care hospital in Huntley, Illinois that includes 100 Medical Surgical beds, 8 Intensive Care beds, and 20 Obstetric beds (the "Project"). The State of Illinois has identified a need for additional beds in the greater McHenry County region (A-10 planning area) that the Project is intended to address. In addition to providing inpatient care, the Project will provide emergency care, surgical services, imaging, and various other inpatient and outpatient services.

## **PURPOSE**

The objective of this engagement is to assist Centegra by performing a market assessment and impact study that will evaluate area population growth and the key operating metrics of the Project, as well as any impact to other A-10 Planning Area hospitals. These analyses are prepared in connection with the completion of the Certificate of Need ("CON") application for this Project that Centegra anticipates filing with the Illinois Health Facilities and Services Review Board ("IHFSRB") by December 31, 2010.

We understand our work product will be used by you in your preparation of the CON application and that we may be called to testify in connection with the IHFSRB consideration of the Project. No other use of our analyses or work product beyond those described above is intended or should be inferred.

## APPROACH AND METHODOLOGY

### Population Study for the Market Area

We utilized Claritas® via Intellimed® to affirm the current population and expected growth trends by zip code for the communities near the Project. Because the expected Project site is located in Huntley, IL, which falls in McHenry County, approximately two miles from the Kane County line, we analyzed zip codes in both McHenry County as well as Kane County. See Exhibit I for population growth data for Kane and McHenry County, 2010-2015.

Claritas® via Intellimed® estimated overall population growth for the next five years for McHenry County and Kane County at 8.7 percent and 9.1 percent respectively. See Exhibit I for detailed five-year projections by zip code for each county. Based upon the data from Claritas®, we calculated the compound annual growth rate for each of the zip codes and used that growth rate to project population by zip code for 2017 and 2018, see Exhibit II.

We then selected 16 zip codes immediately surrounding the proposed site to evaluate and determine the “primary service area” or “PSA” and the “secondary service area” or “SSA” (collectively, the “Market Area”) of the Project. Table I, below, defines the Market Area by zip code with the current (2010) population and projected population for 2015, 2017 and 2018.

The PSA is comprised of 10 zip codes and the SSA is comprised of six zip codes. One zip code in the SSA, zip code 60039, is for Crystal Lake post office boxes. A number of patients that currently use Centegra’s two other facilities use a post office box corresponding to this zip code as their mailing address. As shown in Table I, the overall population in the Market Area is estimated to increase approximately 13.7 percent by 2018. See Exhibit III for a map of the Market Area and Exhibit IV for travel times and mileage to area hospitals.

**Table I  
Market Area Projected Population by Zip Code**

Service Area	Zip Code	City	2010 Population	2015 Population	2017 Population	2018 Population
PSA	60014	Crystal Lake	51,100	54,360	55,722	56,415
PSA	60102	Algonquin	34,875	38,586	40,179	41,000
PSA	60110	Carpentersville	40,768	44,696	46,371	47,232
PSA	60118	Dundee	18,930	20,601	21,310	21,674
PSA	60136	Gilberts	6,670	7,453	7,791	7,966
PSA	60140	Hampshire	14,226	15,962	16,714	17,104
PSA	60142	Huntley	25,824	28,940	30,289	30,987
PSA	60152	Marengo	13,072	14,140	14,591	14,822
PSA	60156	Lake in the Hills	30,066	33,118	34,424	35,096
PSA	60180	Union	1,485	1,550	1,577	1,590
		<b>Total</b>	<b>237,016</b>	<b>259,406</b>	<b>268,968</b>	<b>273,886</b>
SSA	60010	Barrington	44,088	45,154	45,588	45,806
SSA	60012	Crystal Lake	11,265	11,954	12,241	12,387
SSA	60013	Cary	30,084	32,989	34,228	34,865
SSA	60021	Fox River Grove	6,274	6,514	6,613	6,662
SSA	60098	Woodstock	33,657	36,514	37,724	38,343
SSA	60039	Crystal Lake	-	-	-	-
			<b>125,368</b>	<b>133,125</b>	<b>136,394</b>	<b>138,063</b>
<b>Total</b>			<b>362,384</b>	<b>392,531</b>	<b>405,362</b>	<b>411,949</b>

Source: Claritas® via Intellimed® for 2010 to 2015 projections

The compound annual growth rate derived from the 2010-2015 study was used to estimate the 2017 and 2018 population

Note: Zip Code 60039 is for post office boxes and therefore no population numbers exist

***A Majority of the Population in the Market Area Resides in McHenry County***

Based on the information provided above, we estimated the mid-2018 population by zip code. For those zip codes located in two or more counties, we estimated the allocation of population by county based on the approximate percentage of land space for each county. Table II demonstrates that the majority (60.5 percent) of the estimated 2018 population in the Market Area of the Project will reside in McHenry County.

**Table II**  
**Mid-2018 Projected Population by County**

Zip Code	Town	Mid-2018 Population	County					
			McHenry	Kane	Lake	DeKalb	Cook	
60014	Crystal Lake	56,070	56,070					
60102	Algonquin	40,589	37,339	3,250				
60110	Carpentersville	46,801		46,801				
60118	Dundee	21,492		19,000				2,492
60136	Gilberts	7,878		7,878				
60140	Hampshire	16,909		15,200		1,709		
60142	Huntley	30,638	17,638	13,000				
60152	Marengo	14,706	14,706					
60156	Lake in the Hills	34,760	34,760					
60180	Union	1,583	1,583					
<b>Total PSA</b>		<b>271,426</b>	<b>162,096</b>	<b>105,129</b>	<b>0</b>	<b>1,709</b>	<b>2,492</b>	
<b>% of Population</b>			<b>59.72%</b>	<b>38.73%</b>	<b>0.00%</b>	<b>0.63%</b>	<b>0.92%</b>	
60010	Barrington	45,697	1,800	750	18,764			24,383
60012	Crystal Lake	12,314	12,314					
60013	Cary	34,546	29,546		5,000			
60021	Fox River Grove	6,637	3,437		3,200			
60098	Woodstock	38,033	38,033					
60039	Crystal Lake	0	0					
<b>TOTAL SSA</b>		<b>137,227</b>	<b>85,130</b>	<b>750</b>	<b>26,964</b>	<b>0</b>	<b>24,383</b>	
<b>% of Population</b>			<b>62.04%</b>	<b>0.55%</b>	<b>19.65%</b>	<b>0.00%</b>	<b>17.77%</b>	
<b>TOTAL</b>		<b>408,653</b>	<b>247,226</b>	<b>105,879</b>	<b>26,964</b>	<b>1,709</b>	<b>26,875</b>	
<b>% of Population</b>			<b>60.50%</b>	<b>25.91%</b>	<b>6.60%</b>	<b>0.42%</b>	<b>6.58%</b>	

Source: Claritas® via Intellimed® for 2010 to 2015 projections

The compound annual growth rate derived from the 2010-2015 study was used to estimate the mid-2018 population

Zip codes located in multiple counties were allocated based on an estimate of land space in each county

Note: Zip Code 60039 is for post office boxes and therefore no population numbers exist

**Estimated Utilization in the Second Full Year of Operation**

Using COMPdata® via Intellimed®, we analyzed current Medical Surgical, Intensive Care and Obstetric volumes (i.e., number of cases and patient days) in the Project's Market Area in order to understand their distribution and utilization rates by zip code, as well as by MS-DRG, age cohort and payer.

Projected 2017 and 2018 cases and patient days for Centegra Hospital - Huntley's Market Area were projected, based upon Claritas® population projections via Intellimed® for the 2010 - 2015 period by zip code and age cohort. We applied the compound annual growth rate, derived from the 2010-2015 study, by zip code and age cohort to estimate the 2017 and 2018 cases from 2015 which is shown in Exhibit V.

Utilizing the actual experience of both Centegra Hospital - McHenry and Centegra Hospital - Woodstock

and our knowledge of new hospital developments, we estimated the incremental market share by zip code for Medical Surgical, Intensive Care and Obstetrical Services in the Market Area. Market share was determined based on Centegra Health System's historical caseload by zip code and what was expected in 2018 when Centegra Hospital – Huntley opens. We estimated the incremental market share of Centegra Health System and also estimated the cases and days specific to the Project in order to determine its market share and case volume in 2017 and 2018, which is shown in Exhibit V. The assumptions underlying the projected utilization for the Medical-Surgical, Intensive Care, and Obstetric Services are found in Exhibit VII.

Centegra Hospital – Huntley's market share for Medical Surgical and Intensive Care admissions in the Market Area was estimated to be 17.4 percent during the first full year of the hospital's operation (FY17) as shown in Exhibit V. The market share was estimated to increase to 22.8 percent in the second full year of the hospital's operation (FY18) also shown in Exhibit V. The projected Medical-Surgical and Intensive Care cases and patient days in FY18 were assumed to increase in comparison to the projected Medical-Surgical and Intensive Care cases and patient days in FY17 due to the "ramp up" of services after Centegra Hospital - Huntley becomes operational. The number of cases in FY17 is estimated to be 73.7 percent of the cases in FY18.

After the estimated Medical-Surgical patient days were calculated, 8.2 percent and 7.6 percent of Centegra Hospital-Huntley's Medical-Surgical patient days for both FY17 and FY18 respectively, were removed from the projected utilization of the Medical-Surgical Category of Service to estimate the utilization of Centegra Hospital - Huntley's Intensive Care Category of Service. See Table III.

Centegra Hospital – Huntley's market share for Obstetrical admissions in the Market Area was estimated to be 27.8 percent during the first full year of the hospital's operation (FY17) as shown in Exhibit V. The market share was estimated to increase to 36.7 percent in the second full year of the hospital's operation (FY18) as shown in Exhibit V. The projected Obstetric cases and patient days in FY18 were assumed to increase in comparison to the projected Medical-Surgical and Intensive Care cases and patient days in FY17 due to the "ramp up" of services after Centegra Hospital - Huntley becomes operational. The number of cases in FY17 is estimated to be 74.8 percent of the cases in FY18.

Table III summarizes the total admissions and patient days for FY17 and FY18. Observation days of 1,385 and 2,036 were included in Medical-Surgical days for FY17 and FY18 respectively. Based on the overall projected cases and days, Centegra Hospital- Huntley's utilization in FY18 is expected to be 95.5 percent for the 100-bed Medical Surgical unit, 97.6 percent for the 8-bed Intensive Care unit, and 77.4 percent for the 20-bed Obstetric unit.

**Table III**  
**Projected Admissions and Days for the Centegra Hospital – Huntley**

Unit	Proposed Authorized Beds	Admissions		Days		Utilization
		2017	2018	2017	2018	2018
Med Surg (incl observation)	100	6,412	8,699	25,371	34,867	95.5%
Intensive Care	8			2,270	2,850	97.6%
Obstetrics (incl observation)	20	1,543	2,063	4,222	5,647	77.4%
<b>Total</b>	<b>128</b>	<b>7,955</b>	<b>10,762</b>	<b>31,863</b>	<b>43,364</b>	<b>92.8%</b>

Projected utilization for all Ancillary Clinical Service Areas for which there are State Guidelines for target occupancy or utilization are presented in Exhibit VI. The assumptions underlying these utilization projections are found in Exhibit VII.

*Existing Planning Area Hospitals' Patient Volume will be Maintained or Increase Between Now and FY18.*

We estimate that the hospitals in the A-10 Planning Area which have Medical-Surgical, Intensive Care, or Obstetric Services will maintain their current utilization and will most likely increase in utilization between now and 2018. In order to perform our analysis, we looked at the current cases of three A-10 Planning Area hospitals that provide these services in all zip codes and estimated the growth that would occur inside and outside the Market area between now and FY18. We then estimated the lost cases to the Project to determine the total FY18 cases. See Table IV on the next page.

**Table IV  
Impact to Hospitals in the A-10 Planning Area**

Net Cases Remaining at Planning Area Facilities	Current Cases	2018 Growth		Lost Cases -	
		PSA + SSA	Outside Service Area	Centgra Huntley	Total 2018 Cases
<b>Med/Surg Net Cases</b>					
Centegra Woodstock	6,542	1,126	307	(400)	7,575
Centegra McHenry	9,506	680	1,742	(219)	11,709
Mercy Harvard	600	14	101	(5)	710
<b>Total Cases</b>	<b>16,648</b>	<b>1,820</b>	<b>2,150</b>	<b>(624)</b>	<b>19,994</b>
<b>OB Net Cases</b>					
Centegra Woodstock	1,235	72	28	(58)	1,277
Centegra McHenry	1,168	42	52	(37)	1,225
Mercy Harvard	2	-	-	-	2
<b>Total Cases</b>	<b>2,405</b>	<b>114</b>	<b>80</b>	<b>(95)</b>	<b>2,504</b>
<b>Total Net Cases</b>					
Centegra Woodstock	7,777	1,198	335	(458)	8,852
Centegra McHenry	10,674	722	1,794	(256)	12,934
Mercy Harvard	602	14	101	(5)	712
<b>Total Cases</b>	<b>19,053</b>	<b>1,934</b>	<b>2,230</b>	<b>(719)</b>	<b>22,498</b>

Source: COMPdata® and Claritas® via Intellimed for historical caseload and growth projections  
Deloitte determined the net cases (current cases plus growth less lost cases to Centegra Hospital-Huntley) based on the estimated admissions shown in Exhibit V.

## CONCLUSION

Based upon the analysis described above and in the attached Exhibits, we have concluded that (1) a majority of the population in the Market Area resides and will reside in McHenry county in 2018, (2) Centegra Hospital – Huntley will exceed State Guidelines for target occupancy and utilization for all categories of service (Medical Surgical, Intensive Care, and Obstetrics) and ancillary Clinical Service Areas and (3) all existing hospitals within the A-10 Planning Area which have Medical-Surgical, Intensive Care, or Obstetric Services will maintain or exceed their existing patient volume between now and FY18.

We are independent of Centegra Health System and our fee for this analysis was in no way influenced by the results of our work. The qualifications of the individuals who prepared this analysis are attached as Appendix A to this report.

## LIMITATIONS

The information contained within has been derived primarily from documents provided by Centegra Health System, as well as COMPdata® via Intellimed® and Claritas® via Intellimed®. This information includes both audited and unaudited financial and operational information. We have not audited, reviewed, or compiled this information. Accordingly, we express no opinion or other form of assurance on it.

Our procedures with respect to any forecast, projections, or forward looking financial information includes or referred to herein, do not constitute an examination of a forecast in accordance with U.S. generally accepted auditing standards, nor do they constitute an examination of a forecast in accordance with standards established by the AICPA, Therefore, we express no opinion or other form of assurance on them.

Our observations, analyses, and calculations are based on available data, procedures, and analysis set forth herein. They are subject to revision upon the performance of additional procedures or additional information we may become aware of.

## APPENDIX A

### QUALIFICATIONS

The individuals responsible for performing this analysis are members of Deloitte's health care financial advisory service practice.

*Daniel Lynn* is the engagement partner on this assignment and has been active in coordinating our fieldwork, overseeing our analyses, and reviewing the final work product. Dan is a national practice leader for our health care industry financial advisory services practice. He has over 20 years of financial advisory experience and has performed numerous studies with respect to health care entities, including medical practices, hospitals, nursing homes, skilled nursing facilities, ambulatory surgery centers, outpatient rehabilitation centers, medical practices, HMOs and PPOs.

*Lee Piekarz* is an additional project resource on this engagement. Lee is a senior manager in Deloitte's health care financial advisory services practice. Lee has over fifteen years of extensive industry experience working with health systems, hospitals and physician groups. Lee provides these clients counsel in the areas of financial consulting, due diligence on business acquisitions, regulatory compliance, third-party reimbursement and revenue cycle management.

*Daniel Mruz* is a manager on this assignment. He has over 20 years of financial advisory experience and has performed numerous projects with respect to health care entities, including hospitals, ambulatory care centers and nursing facilities.

**Exhibit I**  
**Population Growth for Kane and McHenry County**

County	Zip Code	City	Service Area	2010 Volume	2015 Volume	Percent	CAGR
Kane County, IL	60110	Carpentersville	PSA	40,768	44,696	9.6%	1.9%
Kane County, IL	60118	Dundee	PSA	18,930	20,601	8.8%	1.7%
Kane County, IL	60119	Elburn		9,717	10,756	10.7%	2.1%
Kane County, IL	60120	Elgin		49,715	51,314	3.2%	0.6%
Kane County, IL	60123	Elgin		49,579	52,647	6.2%	1.2%
Kane County, IL	60124	Elgin		17,629	20,153	14.3%	2.7%
Kane County, IL	60134	Geneva		28,452	31,587	11.0%	2.1%
Kane County, IL	60136	Gilberts	PSA	6,670	7,453	11.7%	2.2%
Kane County, IL	60140	Hampshire	PSA	14,226	15,962	12.2%	2.3%
Kane County, IL	60151	Maple Park		5,463	6,174	13.0%	2.5%
Kane County, IL	60174	Saint Charles		34,493	36,652	6.3%	1.2%
Kane County, IL	60175	Saint Charles		22,648	24,869	9.8%	1.9%
Kane County, IL	60177	South Elgin		22,068	24,354	10.4%	2.0%
Kane County, IL	60505	Aurora		68,331	75,235	10.1%	1.9%
Kane County, IL	60506	Aurora		58,639	64,178	9.4%	1.8%
Kane County, IL	60510	Batavia		31,937	34,941	9.4%	1.8%
Kane County, IL	60511	Big Rock		2,541	2,845	12.0%	2.3%
Kane County, IL	60539	Mooseheart		43	50	16.3%	3.1%
Kane County, IL	60542	North Aurora		17,181	19,392	12.9%	2.5%
Kane County, IL	60554	Sugar Grove		11,150	12,783	14.6%	2.8%
<b>Kane County, IL Total</b>				<b>510,180</b>	<b>556,642</b>	<b>9.11%</b>	<b>1.8%</b>
McHenry County, IL	60012	Crystal Lake	SSA	11,265	11,954	6.1%	1.2%
McHenry County, IL	60013	Cary	SSA	30,084	32,989	9.7%	1.9%
McHenry County, IL	60014	Crystal Lake	PSA	51,100	54,360	6.4%	1.2%
McHenry County, IL	60021	Fox River Grove	SSA	6,274	6,514	3.8%	0.8%
McHenry County, IL	60033	Harvard		16,034	17,501	9.1%	1.8%
McHenry County, IL	60034	Hebron		2,341	2,542	8.6%	1.7%
McHenry County, IL	60050	McHenry		32,142	34,717	8.0%	1.6%
McHenry County, IL	60051	McHenry		25,525	27,294	6.9%	1.3%
McHenry County, IL	60071	Richmond		4,658	5,208	11.8%	2.3%
McHenry County, IL	60072	Ringwood		853	938	10.0%	1.9%
McHenry County, IL	60081	Spring Grove		10,228	11,507	12.5%	2.4%
McHenry County, IL	60097	Wonder Lake		11,814	12,734	7.8%	1.5%
McHenry County, IL	60098	Woodstock	SSA	33,657	36,514	8.5%	1.6%
McHenry County, IL	60102	Algonquin	PSA	34,875	38,586	10.6%	2.0%
McHenry County, IL	60142	Huntley	PSA	25,824	28,940	12.1%	2.3%
McHenry County, IL	60152	Marengo	PSA	13,072	14,140	8.2%	1.6%
McHenry County, IL	60156	Lake in the Hills	PSA	30,066	33,118	10.2%	2.0%
McHenry County, IL	60180	Union	PSA	1,485	1,550	4.4%	0.9%
<b>McHenry County, IL Total</b>				<b>341,297</b>	<b>371,106</b>	<b>8.73%</b>	<b>1.7%</b>

Source: Claritas® via Intellimed® for 2010 to 2015 projections

Note: Zip Code 60039 is for post office boxes and therefore no population numbers exist

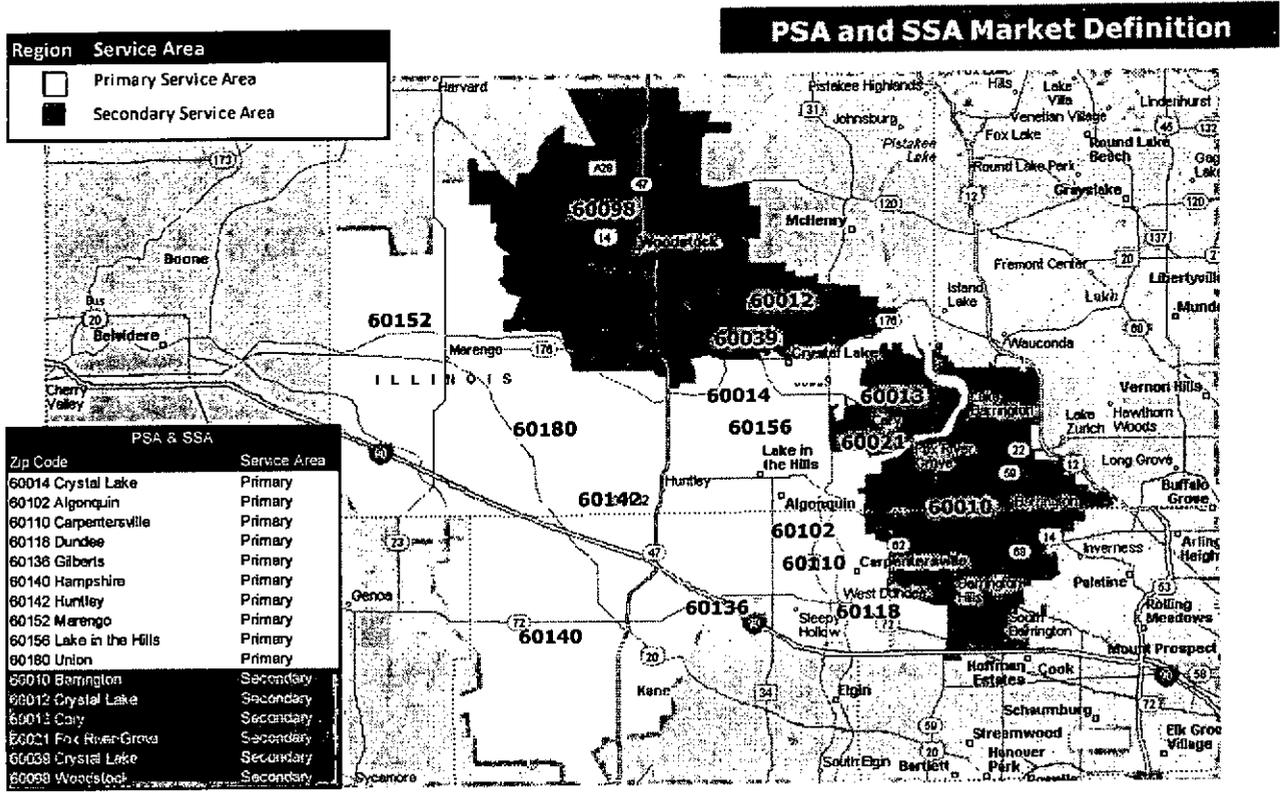
**Exhibit II**  
**Compound Annual Growth Rate ("CAGR"), 2010-2015**

Zip	City	Service Area	2010 Population	2015 Population	Ages 0 - 17 (10-15)	Ages 18 - 34 (10-15)	Ages 35 - 44 (10-15)	Ages 45 - 64 (10-15)	Ages 65+ (10-15)	Overall CAGR
60014	Crystal Lake	PSA	51,100	54,360	0.3%	1.5%	-1.6%	2.4%	3.8%	1.2%
60102	Algonquin	PSA	34,875	38,586	1.5%	3.4%	-3.2%	3.5%	6.0%	2.0%
60110	Carpentersville	PSA	40,768	44,696	1.6%	-0.4%	1.8%	3.8%	5.6%	1.9%
60118	Dundee	PSA	18,930	20,601	1.6%	0.9%	-0.2%	2.1%	5.1%	1.7%
60136	Gilberts	PSA	6,670	7,453	1.0%	2.3%	2.7%	1.3%	7.3%	2.2%
60140	Hampshire	PSA	14,226	15,962	2.1%	1.7%	1.6%	2.2%	5.1%	2.3%
60142	Huntley	PSA	25,824	28,940	1.9%	1.0%	2.7%	2.2%	4.6%	2.3%
60152	Marengo	PSA	13,072	14,140	0.7%	1.3%	1.7%	1.6%	3.4%	1.6%
60156	Lake in the Hills	PSA	30,066	33,118	1.5%	0.6%	-0.7%	4.9%	5.8%	2.0%
60180	Union	PSA	1,485	1,550	-0.4%	1.0%	1.7%	0.5%	2.5%	0.9%
<b>Total</b>			<b>237,016</b>	<b>259,406</b>	<b>1.3%</b>	<b>1.2%</b>	<b>-0.1%</b>	<b>2.9%</b>	<b>4.8%</b>	<b>1.8%</b>

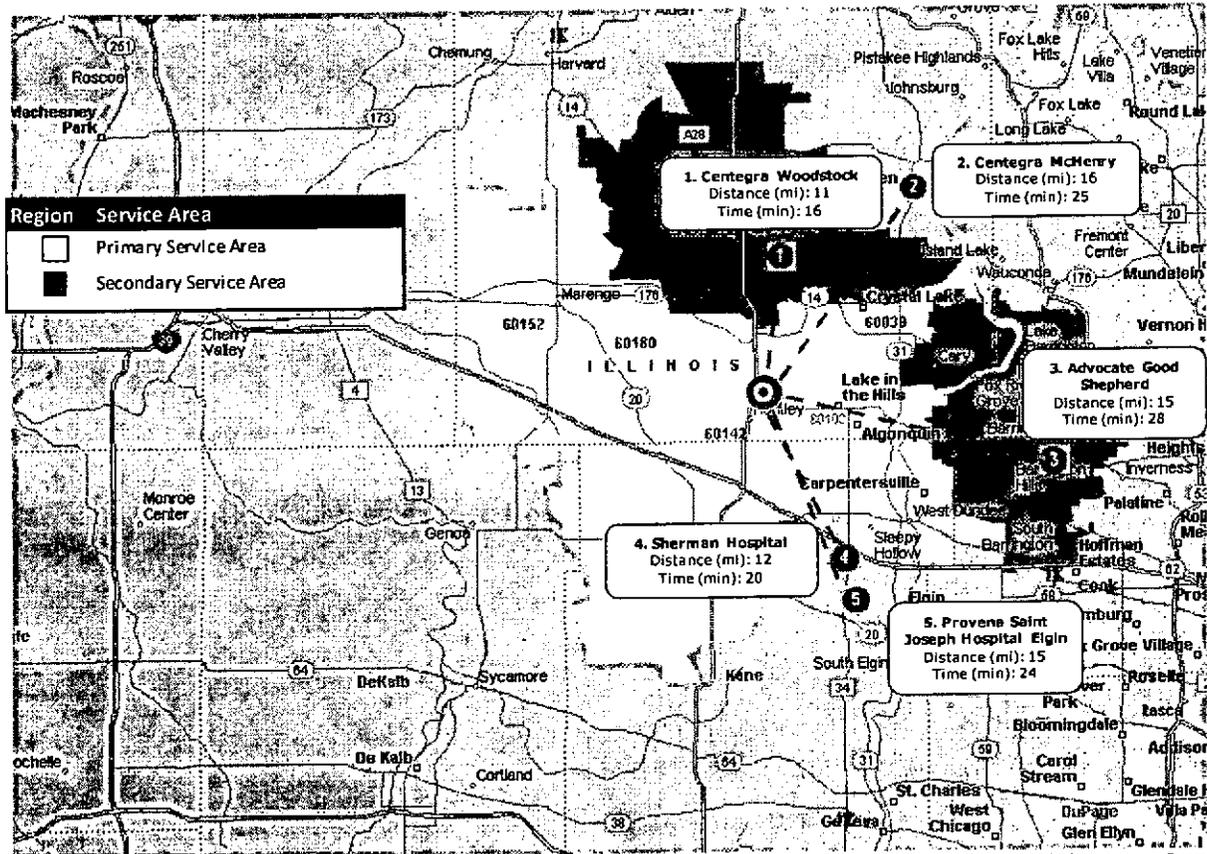
Zip	City	Service Area	2010 Population	2015 Population	Ages 0 - 17 (10-15)	Ages 18 - 34 (10-15)	Ages 35 - 44 (10-15)	Ages 45 - 64 (10-15)	Ages 65+ (10-15)	Overall CAGR
60010	Barrington	SSA	44,088	45,154	-0.5%	3.6%	-3.6%	-1.1%	3.8%	2.2%
60012	Crystal Lake	SSA	11,265	11,954	-0.7%	2.3%	-0.1%	0.7%	4.8%	7.0%
60013	Cary	SSA	30,084	32,989	0.6%	3.3%	-3.7%	3.1%	5.4%	8.7%
60021	Fox River Grove	SSA	6,274	6,514	-1.0%	2.0%	-4.5%	2.1%	3.8%	2.4%
60098	Woodstock	SSA	33,657	36,514	0.9%	0.5%	1.9%	2.4%	3.4%	9.1%
<b>Total</b>			<b>125,368</b>	<b>133,125</b>	<b>0.1%</b>	<b>2.4%</b>	<b>-1.5%</b>	<b>1.0%</b>	<b>4.1%</b>	<b>1.2%</b>

Source: Claritas® via Intellimed® for 2010 to 2015 projections  
 Note: Zip Code 60039 is for post office boxes and therefore no population numbers exist

**Exhibit III  
Map of Primary and Secondary Service Area**



**Exhibit IV**  
**Map with Travel Times and Mileage to Hospitals within 30 Minutes Travel Time of Centegra Hospital – Huntley**



Source: Mapquest ([www.mapquest.com](http://www.mapquest.com)); In accordance with 77 Ill. Adm. Code 1100.510.d(2), travel time has been calculated using Mapquest's determination times 1.15.

**Exhibit V**  
**Centegra Hospital - Huntley Admission Volume Projections by Zip Code for 2017 and 2018**

Admission Projections - 2017									Huntley Admissions	
Zip Code	Service Area	Current Admission Volume	Projected 2017 OB Volume	Projected 2017 Med Srg Volume	Projected 2017 Total Admission Volume	Estimated 2017 Market Share	Current Centegra Admission Volume	Centegra Huntley 2017 Market Share	2017 OB Admission Volume	2017 Med Srg Admission Volume
60014 Crystal Lake	Primary	4,815	725	4,928	5,853	55.00%	2,446	18.22%	241	888
60102 Algonquin	Primary	2,681	481	2,930	3,411	25.00%	222	19.78%	167	580
60110 Carpentersville	Primary	3,407	890	3,185	4,085	20.00%	44	19.25%	305	615
60118 Dundee	Primary	1,511	183	1,687	1,870	10.00%	19	9.29%	45	157
60136 Gilberts	Primary	519	174	466	640	20.00%	7	19.45%	60	91
60140 Hampshire	Primary	1,153	306	1,123	1,429	25.00%	25	24.12%	120	271
60142 Huntley	Primary	3,505	351	4,167	4,518	60.00%	672	51.08%	232	2,128
60152 Marengo	Primary	1,442	199	1,482	1,681	55.00%	694	13.72%	57	103
60156 Lake in the Hills	Primary	2,256	488	2,276	2,784	30.00%	471	12.96%	137	295
60180 Union	Primary	149	17	149	166	50.00%	69	8.40%	4	13
60010 Barrington	Secondary	4,034	378	4,246	4,824	3.00%	36	2.22%	8	94
60012 Crystal Lake	Secondary	881	94	965	1,059	57.00%	500	9.80%	9	95
60013 Cary	Secondary	2,235	369	2,405	2,774	17.00%	379	3.34%	12	80
60021 Fox River Grove	Secondary	496	67	507	574	7.00%	29	1.95%	1	10
60039 Crystal Lake	Secondary	38	4	36	40	45.00%	15	7.50%	0	3
60098 Woodstock	Secondary	3,581	511	3,702	4,213	75.00%	2,681	11.37%	58	420
<b>Total</b>		<b>32,683</b>	<b>5,237</b>	<b>34,264</b>	<b>39,501</b>		<b>8,309</b>		<b>1,456</b>	<b>5,853</b>
<b>Market Share Percentage</b>									<b>27.6%</b>	<b>17.4%</b>

Admission Projections - 2018									Huntley Admissions	
Zip Code	Service Area	Current Admission Volume	Projected 2018 OB Volume	Projected 2018 Med Srg Volume	Projected 2018 Total Admission Volume	Estimated 2018 Market Share	Current Centegra Admission Volume	Centegra Huntley 2018 Market Share	2018 OB Admission Volume	2018 Med Srg Admission Volume
60014 Crystal Lake	Primary	4,815	732	5,057	5,780	60.00%	2,446	24.05%	305	1,218
60102 Algonquin	Primary	2,681	491	3,052	3,543	30.00%	222	24.99%	209	783
60110 Carpentersville	Primary	3,407	893	3,308	4,201	30.00%	44	29.27%	418	958
60118 Dundee	Primary	1,511	185	1,747	1,832	20.00%	19	19.31%	68	337
60136 Gilberts	Primary	519	178	483	660	40.00%	7	39.47%	101	191
60140 Hampshire	Primary	1,153	311	1,183	1,474	40.00%	25	39.15%	176	456
60142 Huntley	Primary	3,505	357	4,330	4,687	65.00%	672	56.40%	264	2,442
60152 Marengo	Primary	1,442	202	1,517	1,719	55.00%	694	14.64%	65	222
60156 Lake in the Hills	Primary	2,256	492	2,360	2,852	40.00%	471	23.49%	202	554
60180 Union	Primary	149	17	152	169	50.00%	69	9.05%	4	14
60010 Barrington	Secondary	4,034	383	4,344	4,727	5.00%	36	4.24%	22	184
60012 Crystal Lake	Secondary	881	96	994	1,090	57.00%	500	11.13%	12	111
60013 Cary	Secondary	2,235	377	2,490	2,887	17.00%	379	3.78%	20	94
60021 Fox River Grove	Secondary	496	68	520	588	10.00%	29	5.07%	4	26
60039 Crystal Lake	Secondary	38	5	35	40	50.00%	15	12.24%	1	4
60098 Woodstock	Secondary	3,581	515	3,788	4,313	75.00%	2,681	12.84%	74	488
<b>Total</b>		<b>32,683</b>	<b>5,302</b>	<b>35,350</b>	<b>40,652</b>		<b>8,309</b>		<b>1,945</b>	<b>8,072</b>
<b>Market Share Percentage</b>									<b>36.7%</b>	<b>22.8%</b>

Source: COMPdata® and Claritas® via Intellimed® for current admissions and population projections (See Table I)  
 See Exhibit VII for the assumptions underlying these projected volumes

**Exhibit VI**  
**Centegra Hospital - Huntley Clinical Service Areas that are not Categories of Service**

<b>OTHER CLINICAL SERVICES</b>		<b>2017</b>	<b>2018</b>
Labor Delivery Recovery Suite births		1,497	2,022
C Section Suite procedures		606	819
Emergency Department visits		18,604	30,586
Surgery			
	Inpatient hours	2,736	4,759
	Outpatient hours	3,685	6,410
	<b>Total</b>	<b>6,421</b>	<b>11,169</b>
	Inpatient cases	1,263	2,196
	Outpatient cases	3,213	5,589
	<b>Total</b>	<b>4,476</b>	<b>7,785</b>
Endoscopy			
	Inpatient hours	465	733
	Outpatient hours	1,372	2,166
	<b>Total</b>	<b>1,837</b>	<b>2,899</b>
	Inpatient cases	542	855
	Outpatient cases	1,618	2,554
	<b>Total</b>	<b>2,160</b>	<b>3,409</b>
CT visits		3,094	4,187
MRI procedures		1,689	2,743
General Radiology & RF procedures		12,464	17,347
Ultrasound -Diagnostic visits		2,741	3,709
Nuclear Medicine visits		730	988

Source: See Exhibit VII for the assumptions underlying these projected volumes

## **Exhibit VII Assumptions Underlying Projected Utilization**

The assumptions underlying the projected utilization for all Clinical Service Areas for which State Guidelines regarding target occupancy or utilization exist are presented below:

### Medical-Surgical Category of Service

1. Using COMPdata via Intellimed, current Medical-Surgical volumes and Intensive Care volumes (i.e., number of cases and patient days) in the project's Primary Service Area (PSA) and Secondary Service Area (SSA) were analyzed by zip code by MS-DRG, age cohort and payor
2. Projected 2018 cases and patient days for the Centegra Hospital - Huntley's PSA and SSA were projected, based upon Claritas population projections via Intellimed for the 2010-2015 period by zip code and age cohort
3. Centegra Hospital - Huntley's estimated market share by zip code for the Medical-Surgical and Intensive Care Services was estimated, based upon Centegra Health System's historical caseload by zip code in the PSA and SSA for its existing hospitals.
4. The percentage of the existing market at Centegra Hospital - McHenry and Centegra Hospital - Woodstock that would be admitted to Centegra Hospital - Huntley was determined, based upon the assumption that a portion of the existing cases in the PSA would move to the new hospital because of the proximity of a zip code to the Huntley site.

The percentage of the existing market that would remain at existing Centegra hospitals was determined based on the methodology provided in the previous paragraph.

5. The impact of projected population growth in the PSA and SSA by the first two full years of operation of Centegra Hospital - Huntley was estimated by using Claritas' projection of population growth via Intellimed by zip code and age cohort.
6. Centegra Hospital - Huntley's market share for Medical-Surgical and Intensive Care admissions in the PSA and SSA was estimated to be 17.4% during the first full year of operation of the hospital's operation (FY17). This market share was estimated to increase to 22.8% in the second full year of the hospital's operation (FY18).
7. The projected Medical-Surgical and Intensive Care cases and patient days in FY18 were assumed to increase in comparison to the projected Medical-Surgical and Intensive Care cases and patient days in FY17 due to the "ramp up" of services after Centegra Hospital - Huntley becomes operational. The number of cases in FY17 is estimated to be 73.7% of the cases in FY18.
8. 8.2% and 7.6% of Centegra Hospital - Huntley's estimated Medical-Surgical patient days for both FY17 and FY18 respectively, were removed because these patient days were estimated to constitute the utilization of the Intensive Care Unit.

### Intensive Care Category of Service

After the estimated Medical-Surgical patient days were calculated, as described in the preceding section, 8.2% and 7.6% of Centegra Hospital-Huntley's Medical-Surgical patient days for both FY17 and FY18

respectively, were removed from the projected utilization of the Medical-Surgical Category of Service.

These patient days are estimated to constitute the utilization of Centegra Hospital - Huntley's Intensive Care Category of Service.

#### Obstetric Category of Service

1. Using COMPdata via Intellimed, current Obstetric volumes (i.e., number of cases and patient days) in the project's Primary Service Area (PSA) and Secondary Service Area (SSA) were analyzed by zip code by MS-DRG, age cohort and payor
2. Projected 2018 cases and patient days for the Centegra Hospital - Huntley's PSA and SSA were projected, based upon Claritas population projections via Intellimed for the 2010-2015 period by zip code and age cohort
3. Centegra Hospital - Huntley's estimated market share by zip code for the Obstetric Service was estimated, based upon Centegra Health System's historical caseload by zip code in the PSA and SSA for its existing hospitals and to address the bed need as identified by the Illinois Health Facilities and Services Board.
4. The percentage of the existing market at Centegra Hospital - McHenry and Centegra Hospital - Woodstock that would be admitted to Centegra Hospital - Huntley was determined, based upon the assumption that a portion of the existing cases in the PSA would move to the new hospital because of the proximity of a zip code to the Huntley site.

The percentage of the existing market that would remain at existing Centegra hospitals was determined based on the methodology provided in the previous paragraph.

5. The impact of projected population growth in the PSA and SSA by the first two full years of operation of Centegra Hospital - Huntley was estimated by using Claritas' projection of population growth via Intellimed by zip code and age cohort.
6. Centegra Hospital - Huntley's market share for Obstetric admissions in the PSA and SSA was estimated to be 27.8% during the first full year of operation of the hospital's operation (FY17). This market share was estimated to increase to 36.7% in the second full year of the hospital's operation (FY18).
7. The projected Obstetric cases and patient days in FY18 were assumed to increase in comparison to the projected Obstetric cases and patient days in FY17 due to the "ramp up" of services after Centegra Hospital - Huntley becomes operational. The number of cases in FY17 is estimated to be 74.8% of the cases in FY18.

#### Surgery

- i. The number of Surgical cases was determined by using the following assumptions.
  - a. The total number of inpatient Surgical cases was estimated to be 22.68% of total estimated inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

- b. The total number of outpatient Surgical cases was estimated to be 3.93% of total outpatient visits.

The estimated total number of outpatient visits was calculated at 14.68 outpatient visits per inpatient admission. This ratio is based upon the ratio of outpatient visits to inpatient admissions that is experienced at Centegra Hospital - McHenry.

- c. Because of the competition in the Surgery Service in the market area, the projected number of surgery cases was reduced to 90% of the projected number of both inpatient and outpatient cases that was calculated in a. and b. above.

- 2. Surgical hours were determined based upon the following assumptions.

- a. Inpatient Surgical cases will average 2.17 hours (130 minutes) including clean-up and set-up time, based on historic experience at Centegra Hospital - McHenry.
- b. Outpatient Surgical cases will average 1.15 hours (69 minutes) including clean-up and set-up time), based on historic experience at Centegra Hospital - McHenry.

#### Endoscopy

- 1. The number of Endoscopy cases was determined by using the following assumptions.

- a. The total number of inpatient Endoscopy cases was estimated to be 11.35% of total estimated inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

- b. The total number of outpatient Endoscopy cases was estimated to be 2.3% of total outpatient visits.

The estimated total number of outpatient visits was calculated at 14.68 outpatient visits per inpatient admission. This ratio is based upon the ratio of outpatient visits to inpatient admissions that is experienced at Centegra Hospital - McHenry.

- c. Because of the competition in the Endoscopy Service in the market area, the projected number of surgery cases was reduced to 70% of the projected number of both inpatient and outpatient cases that was calculated in a. and b. above.

- 2. Endoscopy hours were determined based upon the following assumptions.

- a. Inpatient Endoscopy cases will average 0.858 hours (51.48 minutes) including clean-up and set-up time, based on historic experience at Centegra Hospital - McHenry.

- b. Outpatient Endoscopy cases will average 0.847 hours (50.81 minutes) including clean-up and set-up time), based on historic experience at Centegra Hospital - McHenry.

#### Emergency

The number of Emergency visits was determined by using the following assumptions.

1. 65.1% of inpatient admissions at Centegra Hospital - Huntley will be directly from the hospital's Emergency Department.
2. There will be 3.14 outpatient visits in the Emergency Room for each inpatient admission to the hospital.
3. Because of the competition for Emergency Services in the market area, the projected number of Emergency cases was reduced to 75% of the projected number of both inpatient and outpatient cases that was calculated in 1. and 2. above.

#### Diagnostic Imaging: Radiology and Fluoroscopy

The number of Radiology and Fluoroscopy procedures was determined by using the following assumptions.

1. The total number of inpatient Radiology and Fluoroscopy procedures was estimated to be 161 procedures per 100 inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

#### Diagnostic Imaging: Ultrasound

The number of Ultrasound visits was determined by using the following assumptions.

1. The total number of inpatient Ultrasound visits was estimated to be 14.12% of total estimated inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

2. The total number of outpatient Ultrasound visits was estimated to be 1.3% of total outpatient visits.

The estimated total number of outpatient visits was calculated at 14.68 outpatient visits per inpatient admission. This ratio is based upon the ratio of outpatient visits to inpatient admissions that is experienced at Centegra Hospital - McHenry.

#### Diagnostic Imaging: CT Scanning

The number of CT visits was determined by using the following assumptions.

1. The CT Scanner at Centegra Hospital - Huntley will be used only for inpatient scanning. The CT

Scanner at Centegra Health Center - Huntley, which is adjacent to the proposed hospital, will continue to be used for all outpatient CT scanning at this site.

2. The total number of inpatient CT visits was estimated by assuming that 38.9% of the hospital's inpatient admissions would have an average of 1.92 CT procedures.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

#### Diagnostic Imaging: MRI

The number of MRI procedures was determined by using the following assumptions.

1. The MRI Scanner at Centegra Hospital - Huntley will be used for both inpatient and outpatient scanning.
2. The total number of inpatient MRI procedures was estimated to be 12.94% of total estimated inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

3. The total number of outpatient MRI procedures was estimated to be 2.01% of total outpatient visits.  
  
The estimated total number of outpatient visits was calculated at 14.68 outpatient visits per inpatient admission. This ratio is based upon the ratio of outpatient visits to inpatient admissions that is experienced at Centegra Hospital - McHenry.
4. Because of the competition for MRI scanning in the market area, the projected number of MRI procedures was reduced to 60% of the projected number of both inpatient and outpatient cases that was calculated in 2. and 3. above.

#### Diagnostic Imaging: Nuclear Medicine

The total number of Nuclear Medicine visits was estimated to be 9.18% of total estimated inpatient admissions.

The estimated number of inpatient admissions are described under the Assumptions for the Medical-Surgical Category of Service (the estimated number of Medical-Surgical admissions includes all Intensive Care admissions) and the Obstetric Category of Service.

#### Labor/Delivery/Recovery

98% of all Obstetrical admissions will utilize the Labor/Delivery/Recovery Suite.

#### C-Section Suite

40.5% of all Obstetrical admissions will have a procedure in the C-Section Suite.

**ATTACHMENTS 39-41**

**STANDARD  
& POOR'S**

130 East Randolph Street  
Suite 2900  
Chicago, IL 60601  
tel 312 233-7001  
reference no.: 40128379

December 18, 2009

Centegra Health System  
385 Millennium Drive  
Crystal Lake, IL 60012  
Attention: Mr. Robert Rosenberger, Chief Financial Officer

Re: ***\$48,775,000 Illinois Health Facilities Authority (Centegra Health System) (AGM) Variable Rate Demand Bonds, Series 2002***

Dear Mr. Rosenberger:

Standard & Poor's has reviewed the Standard & Poor's underlying rating (SPUR) on the above-referenced obligations. After such review, we have affirmed the "A-" rating and stable outlook. A copy of the rationale supporting the rating and outlook is enclosed.

The rating is not investment, financial, or other advice and you should not and cannot rely upon the rating as such. The rating is based on information supplied to us by you or by your agents but does not represent an audit. We undertake no duty of due diligence or independent verification of any information. The assignment of a rating does not create a fiduciary relationship between us and you or between us and other recipients of the rating. We have not consented to and will not consent to being named an "expert" under the applicable securities laws, including without limitation, Section 7 of the Securities Act of 1933. The rating is not a "market rating" nor is it a recommendation to buy, hold, or sell the obligations.

This letter constitutes Standard & Poor's permission to you to disseminate the above-assigned rating to interested parties. Standard & Poor's reserves the right to inform its own clients, subscribers, and the public of the rating.

Standard & Poor's relies on the issuer/obligor and its counsel, accountants, and other experts for the accuracy and completeness of the information submitted in connection with the rating. To maintain the rating, Standard & Poor's must receive all relevant financial information as soon as such information is available. Placing us on a distribution list for this information would facilitate the process. You must promptly notify us of all material changes in the financial information and the documents. Standard & Poor's may change, suspend, withdraw, or place on CreditWatch the rating as a result of changes in, or unavailability of, such information. Standard & Poor's reserves the right to request additional information if necessary to maintain the rating.

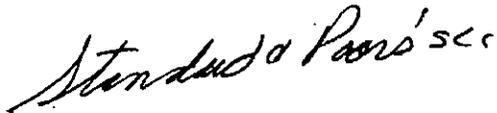
Mr. Robert Rosenberger  
Page 2  
December 18, 2009

Please send all information to:  
Standard & Poor's Ratings Services  
Public Finance Department  
55 Water Street  
New York, NY 10041-0003

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Sincerely yours,

Standard & Poor's Ratings Services  
a Standard & Poor's Financial Services LLC business



gr  
enclosure  
cc: Ms. Pamela A. Lenane, Vice President  
Illinois Finance Authority

**STANDARD  
& POOR'S**

130 East Randolph Street  
Suite 2900  
Chicago, IL 60601  
tel 312.233-7001  
reference no.: 40086613

December 18, 2009

Centegra Health System  
385 Millennium Drive  
Crystal Lake, IL 60012  
Attention: Mr. Robert Rosenberger, Chief Financial Officer

**Re: \$67,500,000 Illinois Health Facilities Authority (Centegra Health System) Hospital  
Revenue Bonds, Series 1998**

Dear Mr. Rosenberger:

Standard & Poor's has reviewed the rating on the above-referenced obligations. After such review, we have affirmed the "A-" rating and stable outlook. A copy of the rationale supporting the rating and outlook is enclosed.

The rating is not investment, financial, or other advice and you should not and cannot rely upon the rating as such. The rating is based on information supplied to us by you or by your agents but does not represent an audit. We undertake no duty of due diligence or independent verification of any information. The assignment of a rating does not create a fiduciary relationship between us and you or between us and other recipients of the rating. We have not consented to and will not consent to being named an "expert" under the applicable securities laws, including without limitation, Section 7 of the Securities Act of 1933. The rating is not a "market rating" nor is it a recommendation to buy, hold, or sell the obligations.

This letter constitutes Standard & Poor's permission to you to disseminate the above-assigned rating to interested parties. Standard & Poor's reserves the right to inform its own clients, subscribers, and the public of the rating.

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Mr. Robert Rosenberger  
Page 2  
December 18, 2009

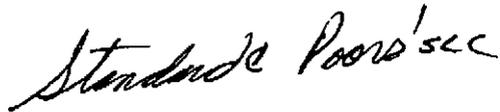
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Sincerely yours,

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a Standard & Poor's Financial Services LLC business



gr  
enclosure

cc: Ms. Pamela A. Lenane, Vice President  
Illinois Finance Authority

## Illinois Health Facilities Authority Centegra Health System

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**Credit Profile**

**Illinois Hlth Fac Auth, Illinois**

Centegra Hlth Sys, Illinois

Illinois Hlth Fac Auth (Centegra Hlth Sys)

Long Term Rating

A-/Stable

Affirmed

**Rationale**

Standard & Poor's Ratings affirmed its 'A-' long-term rating on the Illinois Health Facilities Authority's series 1998 revenue bonds and its 'A-' underlying rating (SPUR) on the authority's series 2002 revenue bonds, both issued for Centegra Health System (CHS). The outlook is stable.

The A- rating reflects:

- A solid business position that is expected to strengthen as CHS implements its strategic initiatives, and
- Operations that are beginning to turn around now that CHS has implemented its strategic initiatives.

Concerns for the rating include moderately high debt levels, with leverage at 54% and cash to long-term debt at 78% at the end of fiscal 2009.

CHS operates two acute-care hospitals: the 157-acute-care-bed Northern Illinois Medical Center in McHenry, Ill., and the 84-acute-care-bed Memorial Medical Center (MMC) in Woodstock, Ill. (MMC also operates 49 behavioral health and skilled-nursing beds on two different sites). Both hospitals are in McHenry County, approximately 60 miles northwest of downtown Chicago. CHS has several other entities (described below), but CHS, NIMC, and MMC are the only entities of the obligated group.

In addition to the two hospitals, CHS also operates:

- Centegra Foundation;
- NIMED Corp., a not-for-profit entity that owns real estate, leases office space, and houses joint ventures;
- Health Bridge Corp., a fitness center;
- Centegra Management Services, a for-profit general management services company for physician practices;
- The new Centegra Insurance Services, a captive insurance plan started Jan. 1, 2007, and funded at the 75% confidence level; and
- Centegra Primary Care (CPC), an operator of various group physician practices with an emphasis on primary care and 62 physicians.

Although small operating losses are common to the affiliates, CPC's have increased as it has hired additional physicians to create a larger presence at Huntley and the existing service area. In 2009, CPC recruited eight physicians as its volumes increased 17.5%. Losses at CPC were \$14.8 million in fiscal 2009, compared with \$8.1 million in fiscal 2008 and \$4.9 million in 2007.

The hospitals' total service area includes McHenry and northwestern Lake County, with a primary and secondary service area population of 324,000. CHS' primary service area has grown significantly during the past few years. While emergency-room visits declined 4% to 66,245 in fiscal 2009, outpatient surgeries increased 3.5% to 24,610 and inpatient acute-care admissions rose 2.5% to 18,410. CHS retains the leading primary market share of about 49%, while the market share of its closest competitor, Advocate Good Shepherd Hospital (part of the 'AA' rated Advocate Health Care Network), has declined significantly in CHS' area of strategic interest.

Net patient revenue increased 6.6% (excluding Illinois Provider Tax funds) in 2009 due partly to a 5% rate increase. However, operating income declined significantly, with a loss of \$1 million (a negative 0.3% margin) compared with operating income of \$6.5 million (a 1.7% margin) in fiscal 2008 and \$12.4 million (a 3.4% margin) in fiscal 2007.

Increased investment in employed physicians, access points to the system, and higher bad-debt expenses have put some near-term pressure on operating income that will continue into fiscal 2010. For the first quarter of fiscal 2010, CHS has posted an operating margin of 0.9% and is ahead of budget. With the challenged operations and impact of realized investment losses, maximum annual debt service coverage (MADS) declined to 2.7x in fiscal 2009, as compared with 3.3x in fiscal 2008. For the first quarter of fiscal 2010, MADS coverage was 2.4x.

In fiscal 2009, unrestricted cash decreased 2.2% to \$153.3 million, which equated to 149 days' cash on hand (165 days in fiscal 2008). With the issuance of additional debt over the past year and a half, long-term debt to capitalization remained moderately high at 54%, and cash to long-term debt was 78% at the end of fiscal 2009. For the first quarter of fiscal 2010, cash on hand was 158 days, leverage was 52%, and cash to debt was 80.8%.

For fiscal 2010, CHS budgets routine capital expenditures of \$11.4 million and expects volumes to remain stable. A certificate of need for a new women's center at MMC has been approved, although management has not decided when the project will begin.

CHS is a party to a floating- to fixed-rate swap with JPMorgan Chase on a notional amount of \$55 million. CHS has a Debt Derivative Profile score of '2' on a four-point scale, with '1' representing the lowest risk.

## Outlook

The stable outlook is based on our expectation that CHS will maintain its days' cash position and market share while investing in its strategic plan. CHS could experience some short-term stress on its volumes and operations due to stiff competition in its market and an increased number of employed physicians. If the negative trend persists or if operating cash flow is not sufficient to manage capital expenditures, the rating or outlook could come under pressure. CHS is not contemplating any significant new debt for the next year or two.

## Related Research

- USPF Criteria: "Not-For-Profit Health Care," June 14, 2007
- USPF Criteria: "Municipal Swaps," June 27, 2007
- USPF Criteria: "Debt Derivative Profile Scores," March 27, 2006

### Ratings Detail (As Of 28-Dec-2009)

#### Illinois Hlth Fac Auth, Illinois

Centegra Hlth Sys, Illinois

Illinois Hlth Fac Auth (Centegra Hlth Sys)

Illinois Hlth Fac Auth (Centegra Hlth Sys) (AGM)

Unenhanced Rating

A-(SPUR)/Stable

Affirmed

Long Term Rating

AAA/A-1+/Negative

Affirmed

Many issues are enhanced by bond insurance.

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**ATTACHMENT 42**

December 1, 2010

Mr. Michael Constantino  
Project Review Supervisor  
Illinois Health Facilities and Services Review Board  
525 W. Jefferson  
Second Floor  
Springfield, Illinois 62702

Re: Centegra Health System  
Centegra Hospital - Huntley

Dear Mr. Constantino:

The undersigned, as authorized representatives of Centegra Hospital System and Centegra Hospital – Huntley, in accordance with 77 Ill. Adm. Code 1120.140.b)1) and 3) and the requirements of Section X.B. of the CON Application for Permit, hereby attest to the following:

The selected form of debt financing for this project will be bonds, issued through the Illinois Finance Authority as well as operating and/or capital leases.

The selected form of debt financing for this project will be at the lowest net cost available to the co-applicants.

Part of the project involves the leasing of equipment, and the expenses incurred with such leasing are less costly than purchasing new equipment.

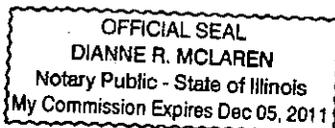
Signed and dated as of December 1, 2010:

Centegra Health System  
Centegra Hospital - Huntley  
Illinois Corporations

By: [Signature]  
Its: CEO

SUBSCRIBED and SWORN to before me  
this 1<sup>st</sup> day of December, 2010.

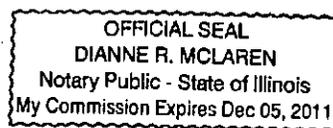
[Signature]  
Notary Public



By: [Signature]  
Its: PRESIDENT/COO

SUBSCRIBED and SWORN to before me  
this 1<sup>st</sup> day of December, 2010.

[Signature]  
Notary Public



**ATTACHMENT-43**  
**SAFETY NET IMPACT STATEMENT**

## XI. Safety Net Impact Statement

### 1. The project's material impact, if any, on essential safety net services in the community

Health Safety Net Services have been defined as services provided to patients who are low-income and otherwise vulnerable, including those uninsured and covered by Medicaid. (Agency for Healthcare Research and Quality, Public Health Service, U.S. Department of Health and Human Services, "The Safety Net Monitoring Initiative," AHRQ Pub. No. 03-P011, August, 2003)

This project will provide Health Safety Net Services in the Medical-Surgical, Intensive Care, and Obstetric categories of service as well as in clinical service areas that are not categories of service by establishing a hospital with these services in a planning area (Planning Area A-10) that has bed need for these services. This hospital will also serve other parts of the target market area that are in other planning areas.

When established and operational, Centegra Hospital - Huntley will improve the provision of essential safety net services to the inpatients that it will serve, including the uninsured and underinsured residents of Planning Area A-10, the State-defined planning area in which the hospital is located.

Planning Area A-10 is comprised of McHenry County.

As discussed in Attachment 12, the market area for this project includes portions of McHenry County, which constitutes Planning Area A-10, plus portions of adjacent counties, particularly Kane and Lake Counties, from which significant number of residents currently utilize outpatient services in the Centegra Health Center - Huntley that is located on the same campus where Centegra Hospital - Huntley will be located. Since zip codes in McHenry County frequently include area in adjacent counties, it is necessary to include areas in adjacent counties in the definition of the market area for this project.

Inasmuch as this certificate of need (CON) application proposes to establish a new hospital, no historic patient origin data are available for Centegra Hospital - Huntley.

However, since the Centegra Health Center - Huntley, which includes an urgent care center and physicians' offices, is located adjacent to the proposed hospital, patient origin for these facilities was examined to identify potential patient origin for Centegra Hospital - Huntley. The patient origin data, which are presented on Attachment 12, Page 7, and Attachment 20, Page 8, indicate that 88% of the FY2010 visits to the urgent care center and 75% of the visits to physicians' offices were from residents of the primary market area, of which more than 82%

of the visits to the urgent care center and 69% of the visits to physicians' offices were from residents of zip codes in the primary market area that were primarily located in McHenry County. Additional, more than 4% of the visits to the urgent care center and nearly 12% of the visits to physicians' offices were from residents of the secondary market area, of which 4% of the visits to the urgent care center and more than 11% of the visits to physicians' offices were from residents of zip codes in the secondary market area that were primary located in McHenry County.

These patient origin data document that Centegra Hospital - Huntley can be expected to serve the population of McHenry County, the state-designated planning area in which it will be located and in which there is currently significant bed need in the categories of service proposed for this hospital: Medical-Surgical Category of Service; Intensive Care Category of Service; and Obstetric Category of Service.

In addition, patient origin data for the two existing general acute care hospitals in McHenry County as well as the Critical Access Hospital in the County demonstrate that these hospitals each serve a unique portion of Planning Area A-10. These patient origin data are found on Pages 12 through 14 of Attachment 12 and also in Attachment 20.

The establishment of Centegra Hospital - Huntley will result in the provision of much-needed services to the low income and uninsured that reside and work within the market area for this project.

There are residents of the target market area for this project who are low-income and otherwise vulnerable, as documented by their residing in Medically Underserved Areas and/or Health Professional Shortage Areas and by the payor mix expected to be experienced at Centegra Hospital - Huntley.

Medically Underserved Areas and Medically Underserved Populations are designated by the federal government (Health Resources and Services Administration of the U.S. Department of Health and Human Services) based on the Index of Medical Underservice. Designated Medically Underserved Areas (MUAs) and Medically Underserved Populations (MUPs) are eligible for certification and funding under federal programs such as Community Health Center (CHC) grant funds, Federally Qualified Health Centers (FQHCs), and Rural Health Clinics (<http://bhpr.hrsa.gov/shortage/muaguide.htm>) (Health Resources and Services Administration, U.S. Department of Health and Human Services).

Health Professional Shortage Areas are designated by the federal government because they have a shortage of primary medical care, dental, or mental health providers (<http://bhpr.hrsa.gov/shortage/index.htm> Health Resources and Services Administration, U.S. Department of Health and Human Services).

- Within McHenry County, there are 3 census tracts that have been designated by the Governor as having a federally-designated Medically Underserved Population, a designation that is made to document unusual local conditions and barriers to accessing personal health services.
- Carpentersville, in Kane County, has a census tract that is a federally-designated Medically Underserved Area.
- There are 4 townships in the Hampshire Service Area in Kane County that have been identified as federally-designated Health Professional Shortage Areas for primary medical care.

This project will have a positive impact on essential safety net services in Planning Area A-10 and the market area for this project for those patients requiring inpatient care in the Medical-Surgical, Intensive Care, and Obstetric categories of service because this project will provide acute care services and physician services to patients residing in these areas.

2. The project's impact on the ability of another provider or health care system to cross-subsidize safety net services

There are 4 existing hospitals in Planning Area A-10, 3 of which are members of Centegra Health System. One of these hospitals, Centegra Specialty Hospital - Woodstock, South Street, provides only Acute Mental Illness and General Long Term Care Categories of Service. The fourth hospital, Mercy Harvard Memorial Hospital in Harvard, is a Critical Access Hospital that has a total of 20 authorized acute care beds (17 Medical-Surgical beds and 3 Intensive Care beds).

This project will not impact other hospitals because it is intended to meet existing bed need based upon the population growth forecast by the Illinois Health Facilities and Services Review Board and Illinois Department of Public Health in the "Inventory of Health Care Facilities and Services and Need Determinations," and, to the extent that existing residents of the target market area currently receive inpatient care at existing hospitals, the availability of accessible inpatient services in the southwestern portion of Planning Area A-10 will result in increased availability for the growing population projected throughout the area.

As a result, this project should not have any impact on the ability of another provider or health care system to cross-subsidize safety services, but it is anticipated that it will enhance Centegra Health System's ability to cross-subsidize safety net services at all of its locations.

3. How the discontinuation of a facility or service might impact the remaining safety net providers in a given community

This item is not applicable because neither of the co-applicants (Centegra Hospital - Huntley and Centegra Health System) is proposing to discontinue any services or facilities.

Safety Net Impact Statements shall also include all of the following:

1. For the 3 fiscal years prior to the application, a certification describing the amount of charity care provided by the applicant. The amount calculated by hospital applicants shall be in accordance with the reporting requirements for charity care reporting in the Illinois Community Benefits Act.

As stated above, this project has two co-applicants: Centegra Hospital - Huntley and Centegra Health System.

This item does not apply to Centegra Hospital - Huntley, which is a newly created entity that is not yet operational.

A notarized certification describing the amount of charity care provided in 2007 through 2009 by each of the hospitals that are members of Centegra Health System is found on Page 8 of this Attachment.

2. For the 3 fiscal years prior to the application, a certification of the amount of care provided to Medicaid patients. Hospital and non-hospital applicants shall provide Medicaid information in a manner consistent with the information reported each year to the Illinois Department of Public Health regarding "Inpatients and Outpatients Served by Payor Source" and "Inpatient and Outpatient Net Revenue by Payor Source" as required by the Illinois Health Facilities and Services Review Board under Section 13 of the Illinois Health Facilities Act and published in the Annual Hospital Profile.

As stated above, this item does not apply to Centegra Hospital - Huntley, which is a newly created entity that is not yet operational.

A notarized certification describing the amount of care provided to Medicaid patients in 2007 through 2009 by each of the hospitals that are members of Centegra Health System is found on Page 9 of this Attachment.

3. Any other information the applicant believes is directly relevant to safety net services, including information regarding teaching, research, and any other service.

A Safety Net Information per PA 96-0031 table in the specified format must be provided as part of Attachment 43.

The Table is found on Pages 10 through 12 of this Attachment, with a separate table for each of the existing Centegra hospitals (i.e., Centegra Hospital - McHenry, Centegra Hospital - Woodstock, Centegra Specialty Hospital - Woodstock South Street).

- a. Centegra's FY2009 Community Benefits Activities are identified in this Report.
- b. A copy of Centegra Health System's 2010 Report to the Community, "It's All Right Here," is appended to this Attachment.
- c. During FY2009, Centegra Health System provided more than \$3,000,000 in community benefits, an increase from FY2008.
- d. Centegra Health system's Community Benefits Objective is to improve the health and wellness of its community by increasing access through coordinated unified programs and services.
- e. Centegra Health System is an active participant in the McHenry County Health Department's Healthy Community Study, which is a collaborative effort in which more than 20 organizations are participating.
- f. Centegra Health System has been an active participant in the McHenry County Health Department's MAPP (Mobilizing for Action through Planning and Partnerships), an ongoing effort which is currently in its action phase.
- g. The Centegra Wellness on the Move Mobile Health Unit, a 32 foot long van, travels to serve patients throughout McHenry County all year long. It provides screenings and health care services at no cost to residents of the county who may not have the time or means to reach a medical facility or wellness center.

The Mobile Health Unit has 2 examining rooms as well as x-ray, ultrasound and EKG machines, and the staff are able to conduct audiology screenings, blood draws, and provide patient education. Free health screenings such as diabetes and blood pressure are performed on a monthly basis.

Since it became operational in 2008, Centegra's Mobile Health Unit has provided vascular, skin, blood pressure, hearing and diabetes screenings, flu shots, and Health Risk Assessments. During its first year of operation, more than 1,552 McHenry County residents entered the Mobile Health Unit at more than 110 events.

- h. The Mobile Health Unit has worked with McHenry County's Public Action to Deliver Shelter (P.A.D.S.), a non-profit organization that provides shelter and other vital services to the homeless in Woodstock, and has partnered with Robert Dorn and The Pointe in Crystal Lake to deliver healthcare services where the need is greatest.
- i. Each year, Centegra Health System takes part in more than 100 community events throughout McHenry County for the advancement of health education and wellness.
- i. Centegra Health system is listed as one of 50 top-ranked health systems in Thomson Reuters' "100 Top Hospitals: Health Systems Quality/Efficiency Study."

This national benchmarking study evaluated 252 health systems with a total of 1,720 hospitals on measures of clinical measures of clinical quality and efficiency.

- k. In addition to both Centegra Hospital - McHenry and Centegra Hospital - Woodstock serving as Level II Trauma Centers for adults, they provide additional resources to the communities they serve for Emergency Medical Services (EMS).

Centegra Hospital - McHenry is the EMS Resource Hospital for the McHenry and Western Lake County EMS System's service area. Centegra Hospital - Woodstock is an Associate Hospital within this EMS service area. As such, these Centegra hospitals manage the operations related to meeting IDPH Rules for EMS service delivery to all EMS agencies participating in the McHenry - Western Lake County EMS System. The hospitals establish patient care protocols, operational policy, procedural policy, CQI/PI, and training (both initial and ongoing continuing education related to approval for relicensure) for fire/rescue squads and private ambulance services.

- i. For nearly 30 years, Centegra Hospital - McHenry and Centegra Hospital - Woodstock have coordinated the EMS training program at both certificate and the Associate Degree level at McHenry County College, training, First Responders, Emergency Medical Techs- Basic and Emergency Medical Techs - Paramedics. In addition, Centegra's EMS Department provides educational oversight for all EMS training provided within each agency, as well as the direct delivery of specific training and skill competency evaluation within the EMS System for all paramedics.

m. Centegra Health system provides a number of professional education training experiences.

- 1) Clinical Practicum Experience for Nursing and Certified Nursing Assistant students
- 2) Professional education for students in Medical Education, Pharmacy, Respiratory Care, and Surgical Technologist programs
- 3) Internship for Phlebotomy students and Health Care Administrators

September 29, 2009

Mr. Michael Constantino  
Illinois Department of Public Health  
Health Facilities and Services Review Board  
525 West Jefferson Street, Second Floor  
Springfield, Illinois 62761

Re: Centegra Health System Amended Charity Care for 2006 and 2007 IDPH Annual Hospital Questionnaires

Dear Mr. Constantino,

This letter is to inform you of a correction to the "Actual Cost of Services to Charity Care Inpatients and Outpatients" that was reported for Centegra Health System (Memorial Medical Center – Old, Memorial Medical Center – New and Northern Illinois Medical Center) for the 2006 and 2007 Illinois Department of Public Health Annual Hospital Questionnaires. Following are the amended figures:

**Memorial Medical Center – Old (Centegra Specialty Hospital – Woodstock South Street)**

	<u>FY07</u>	<u>FY06</u>
Inpatient	\$36,897	\$47,328
Outpatient	\$0	\$32,961

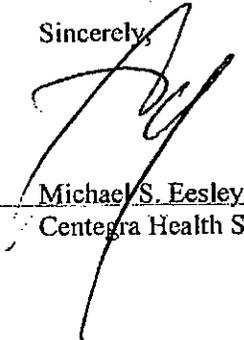
**Memorial Medical Center – New (Centegra Hospital – Woodstock)**

	<u>FY07</u>	<u>FY06</u>
Inpatient	\$408,804	\$531,336
Outpatient	\$451,835	\$370,040

**Northern Illinois Medical Center (Centegra Hospital – McHenry)**

	<u>FY07</u>	<u>FY06</u>
Inpatient	\$934,098	\$719,823
Outpatient	\$460,078	\$437,339

Sincerely,



Michael S. Eesley

Centegra Health System, President and CEO

November 17, 2010

Mr. Dale W. Galassie  
 Acting Chairman  
 Illinois Health Facilities and Services Review Board  
 525 W. Jefferson  
 Springfield, Illinois 62761

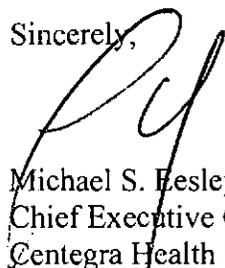
Dear Mr. Galassie:

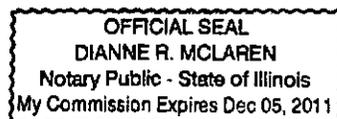
Centegra Health System hereby certifies that it provided the amount of Medicaid that is shown below for the three audited fiscal years prior to submission of this certificate of need application.

	<u>MEDICAID NET REVENUE</u>		
	<u>FY2007</u>	<u>FY2008</u>	<u>FY2009</u>
<b><u>Centegra Hospital - McHenry</u></b>			
Inpatients	\$ 6,044,969	\$4,888,534	\$9,974,978
Outpatients	\$12,472,814	\$7,508,978	\$4,882,998
<b><u>Centegra Hospital - Woodstock</u></b>			
Inpatients	\$ 2,470,901	\$ 982,995	\$6,182,041
Outpatients	\$ 9,590,574	\$5,051,052	\$2,232,819
<b><u>Centegra Specialty Hospital - Woodstock South Street</u></b>			
Inpatients	\$ 942,632	\$1,874,277	\$1,880,183
Outpatients	\$ 412,186	\$ 449,486	\$ 387,052

This information is provided in a manner consistent with information reported each year to the Illinois Department of Public Health regarding "Inpatients and Outpatients Served by Payor Source" and "Inpatient and Outpatient Net Revenue by Payor Source," as required by the Illinois Health Facilities and Services Review Board under Section 13 of the Illinois Health Facilities Planning Act and published in the Annual Hospital Profile.

Sincerely,

  
 Michael S. Hesley  
 Chief Executive Officer  
 Centegra Health System



SUBSCRIBED and SWORN to before me  
 this 17<sup>th</sup> day of November, 2010.

  
 Notary Public

November 17, 2010

Mr. Dale W. Galassie  
Acting Chairman  
Illinois Health Facilities and Services Review Board  
525 W. Jefferson  
Springfield, Illinois 62761

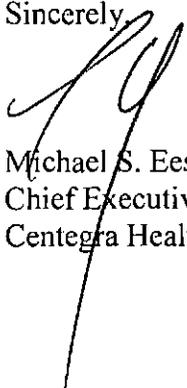
Dear Mr. Galassie:

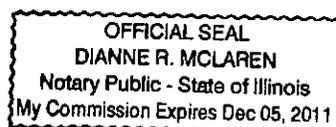
Centegra Health System hereby certifies that it provided the amount of charity care at cost that is shown below for the three audited fiscal years prior to submission of this certificate of need application.

	<u>CHARITY CARE</u>		
	<u>FY2007</u>	<u>FY2008</u>	<u>FY2009</u>
<b><u>Centegra Hospital - McHenry</u></b>			
Inpatients	\$1,741,834	\$1,059,290	\$1,399,187
Outpatients	\$ 533,946	\$ 443,888	\$ 801,145
Total	\$2,275,780	\$1,503,178	\$2,200,332
<b><u>Centegra Hospital - Woodstock</u></b>			
Inpatients	\$1,066,820	\$ 962,747	\$1,067,446
Outpatients	\$ 386,961	\$ 450,771	\$ 616,274
Total	\$1,453,781	\$1,413,518	\$1,683,720
<b><u>Centegra Specialty Hospital - Woodstock South Street</u></b>			
Inpatients	\$ 54,675	\$ 18,946	\$ 54,990
Outpatients	\$ 17,552	\$ 8,871	\$ 31,747
Total	\$ 72,227	\$ 27,817	\$ 86,737

These amounts were calculated in accordance with the reporting requirements for charity care reporting in the Illinois Community Benefits Act.

Sincerely,

  
Michael S. Eesley  
Chief Executive Officer  
Centegra Health System



SUBSCRIBED and SWORN to before me  
this 17<sup>th</sup> day of November, 2010.

  
Notary Public

**CENTEGRA HOSPITAL - McHENRY**  
**SAFETY NET INFORMATION PER P.A. 96-0031**

<b>CHARITY CARE</b>			
	<b>FY2007</b>	<b>FY2008</b>	<b>FY2009</b>
<b>Charity (# of patients)</b>			
Inpatient	189	204	219
Outpatient	622	770	863
<b>Total Patients</b>	<b>811</b>	<b>974</b>	<b>1,082</b>
<b>Charity (cost in dollars)</b>			
Inpatient	\$1,741,834	\$1,059,290	\$1,399,187
Outpatient	\$533,946	\$443,888	\$801,145
<b>Total</b>	<b>\$2,275,780</b>	<b>\$1,503,178</b>	<b>\$2,200,332</b>
<b>MEDICAID</b>			
	<b>FY2007</b>	<b>FY2008</b>	<b>FY2009</b>
<b>Medicaid (# of patients)</b>			
Inpatient	944	1,047	1,109
Outpatient	11,709	13,430	16,435
<b>Total Patients</b>	<b>12,653</b>	<b>14,477</b>	<b>17,544</b>
<b>Medicaid (revenue)</b>			
Inpatient	\$6,044,969	\$4,888,534	\$9,974,978
Outpatient	\$12,472,814	\$7,508,978	\$4,882,998
<b>Total</b>	<b>\$18,417,783</b>	<b>\$12,397,512</b>	<b>\$14,857,976</b>

**CENTEGRA HOSPITAL - WOODSTOCK**  
**SAFETY NET INFORMATION PER P.A. 96-0031**

<b>CHARITY CARE</b>			
	<b>FY2007</b>	<b>FY2008</b>	<b>FY2009</b>
<b>Charity (# of patients)</b>			
Inpatient	166	150	160
Outpatient	592	677	938
Total Patients	758	827	1,098
<b>Charity (cost in dollars)</b>			
Inpatient	\$1,066,820	\$962,747	\$1,067,446
Outpatient	\$386,961	\$450,771	\$616,274
Total	\$1,453,781	\$1,413,518	\$1,683,720
<b>MEDICAID</b>			
	<b>FY2007</b>	<b>FY2008</b>	<b>FY2009</b>
<b>Medicaid (# of patients)</b>			
Inpatient	1,178	1,051	1,136
Outpatient	12,143	12,707	14,995
Total Patients	13,321	13,758	16,131
<b>Medicaid (revenue)</b>			
Inpatient	\$2,470,901	\$982,995	\$6,182,041
Outpatient	\$9,590,574	\$5,051,052	\$2,232,819
Total	\$12,061,475	\$6,034,047	\$8,414,860

**CENEGRA SPECIALTY HOSPITAL -  
WOODSTOCK SOUTH STREET  
SAFETY NET INFORMATION PER P.A. 96-0031**

<b>CHARITY CARE</b>			
	<b>FY2007</b>	<b>FY2008</b>	<b>FY2009</b>
<b>Charity (# of patients)</b>			
Inpatient	9	23	56
Outpatient	14	17	9
Total Patients	23	40	65
<b>Charity (cost in dollars)</b>			
Inpatient	\$54,675	\$18,946	\$54,990
Outpatient	\$17,552	\$8,871	\$31,747
Total	\$72,227	\$27,817	\$86,737
<b>MEDICAID</b>			
	<b>FY2007</b>	<b>FY2008</b>	<b>FY2009</b>
<b>Medicaid (# of patients)</b>			
Inpatient	285	271	200
Outpatient	218	192	95
Total Patients	503	463	295
<b>Medicaid (revenue)</b>			
Inpatient	\$942,632	\$1,874,277	\$1,880,183
Outpatient	\$412,186	\$449,486	\$387,052
Total	\$1,354,818	\$2,323,763	\$2,267,235

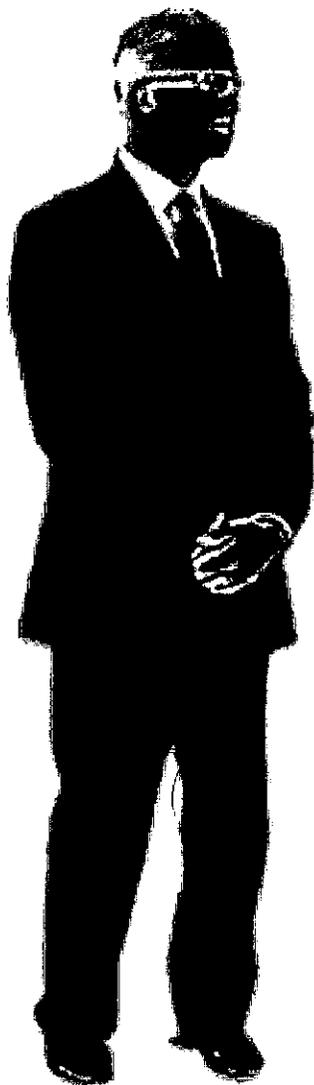
**It's all  
right  
here.**

Report to the  
Community 2010

**Centegra  
HealthSystem**



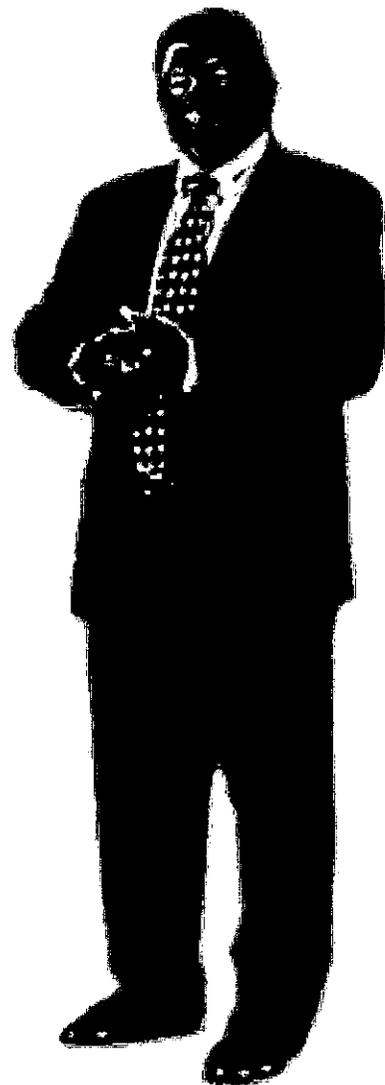
**Welcome!**



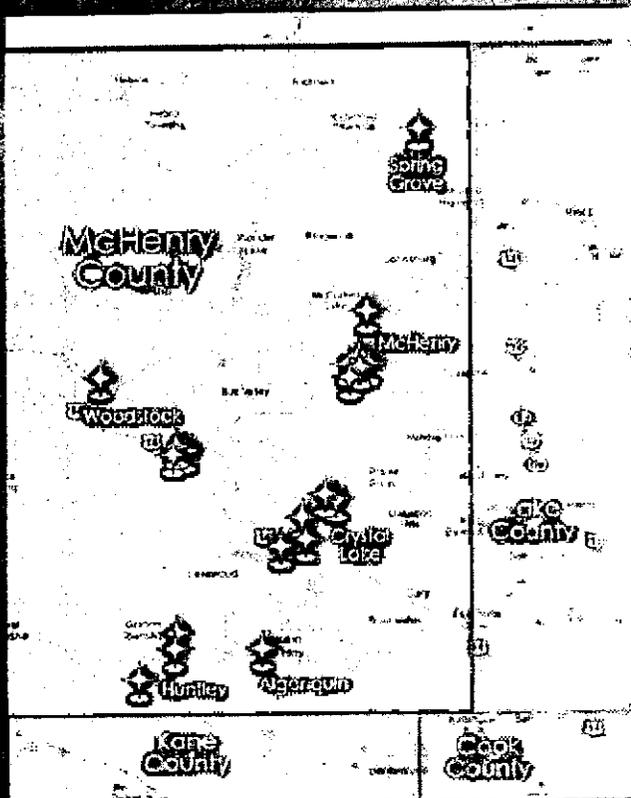
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**it's all right here.**

Welcome to our new multi-media report to the community! We invite you to share in our story of passionate caring, comprehensive wellness and prevention programs, continuing support and revolutionary care that is well beyond expectation.



Report to the Community 2010



## Centegra Health System Locations

Crystal Lake, Huntley, McHenry, Woodstock, Spring Grove and Algonquin

### Algonquin



**Centegra Primary Care**  
2971 West Algonquin Road  
Algonquin IL, 60102

### Crystal Lake



**Centegra Corporate Office & Foundation**



It's all right here.

Report to the Community 2010

Centegra  
Health System

## Wellness on the Move is convenient service

The Centegra Wellness on the Move mobile health unit reaches out to the community by traveling to serve patients throughout the county all year long.

The unit supplies two examining rooms and machines for x-rays, ultrasound, EKG, audiology screenings, blood draws and patient education.

Since 2008, the 32-foot-long van has provided endless opportunities for community members to receive vascular, skin, blood pressure, audio, video and diabetes screenings, flu shots, and Health Risk Assessments.

"Everyone loves the convenience of the Mobile Health Unit. Instead of community members only coming to us, we try to make it easier and come to them," said Gisenia Vega, Mobile Health Unit Coordinator. "Affordable and convenient vascular screenings have also enabled those who need those screenings to receive much-needed care that they may not have received otherwise."

The mobile health unit allows Centegra to reach community members who may not have the time or means to reach a medical facility or wellness center. Both blood pressure and diabetes screenings permit citizens to get checked conveniently and at no cost.

Last year, Centegra's Mobile Health Unit participated in more than 120 events and more than 2,000 McHenry County



residents stepped into the van. It has proudly been featured in neighborhood parades, fairs, grand openings, expos and is used for worksite wellness visits to local corporations. Hundreds of area residents have prevented or detected a variety of complications because of a simple visit to the Centegra Wellness on the Move mobile health unit.

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## High tech close to home

At Centegra, we know residents don't want to go far from home to get the imaging tests you need. Centegra Associates and physicians are compassionate and committed to serving with the most advanced levels of technology right here in McHenry County. We believe that community members should have the latest advances and not have to travel long distances to academic centers for the best imaging technology.

To bring the most up-to-date care to the people of McHenry County, Centegra uses a digital communication system to share high-quality images with specialists both on- and off-site. This system provides rapid results and allows the transfer of images to experts around the world, if needed.

**Our High Tech Services**  
Centegra offers the complete range of Medical Imaging Services to our neighbors in McHenry County.

- CT
- MRI
- PET/CT
- Nuclear Medicine
- Ultrasound
- Digital Mammography
- Bone Density
- X-Ray
- Special Procedures

Visit any one of our convenient locations.



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## Centegra Wound & Hyperbaric Center discharges first patient

Frank Gonsowski of Huntley proudly left the Centegra Wound & Hyperbaric Center Tuesday, Aug. 3 after being the first patient cleared by Dr. Roger Lundquist, medical director of the center.

Upon opening to the public in July, the Centegra Wound & Hyperbaric Center became the first facility in McHenry County to offer comprehensive wound care treatment for those with non-healing wounds. The addition to Centegra's continuum of care provides quality treatment close to home, using innovative treatment like Hyperbaric Oxygen Therapy that uses a pressurized, oxygen-rich environment to stimulate growth of new vessels and improve circulation to help with faster healing and shorter recovery.

Lundquist said, "The community was ready for a comprehensive center for wound care and now we are able to provide it to them."

The Centegra Wound & Hyperbaric Center treats patients with chronic or non-healing wounds from venous and arterial insufficiency, diabetes, pressure, burns, injury as well as other conditions.

As a partner with Diversified Clinical Services (DCS), the world's largest wound care management company, Centegra Health System is combining the excellence in care to best serve the community. The comprehensive team of wound care specialists, all of who have received special wound care training and



education, works with patients and DCS to make treatment as convenient and comfortable as possible.

Gonsowski said his experience at the new center was joyful and that the wound care team provided excellent care and a fast recovery time. In June, Gonsowski tore his ACL and meniscus that required surgery to heal his injury. He received care from Centegra Hospital – McHenry and went for treatment to his wound every day until July, when the Centegra Wound & Hyperbaric Center opened. While he thoroughly enjoyed his care at Centegra Hospital – McHenry, he was grateful for the convenience the new center provided him.

"I love how close it is to my home in Sun City," Gonsowski said. "I no longer have to travel 20 miles to receive quality care."

In addition, the nurses on staff at the wound center showed Gonsowski how to

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## Centegra Wound & Hyperbaric Center discharges first patient (cont.)

care for his wound on his own, so he did not require daily treatment.

"I felt empowered and equipped with the necessary materials and education to care for myself," he said. "I only needed to make appointments once a week instead of every day."

When Gonsowski heard about the new wound care center during his treatment at Centegra Hospital – McHenry, he simply called to make his first appointment. At the Centegra Wound & Hyperbaric Center, referrals are not needed; people only need to call the main line to receive their initial assessment. When Gonsowski called, he was immediately taken and given the care and treatment he needed to heal as fast as possible.

The Centegra Wound & Hyperbaric Center is a division of Centegra Hospital – Woodstock and is located at 11650 South Route 47, Huntley.

To learn more about Centegra Wound & Hyperbaric Center, or to meet the team of wound care specialists, visit [www.centegra.org/woundcare](http://www.centegra.org/woundcare). Call 815-334-5566 to receive additional information or to schedule an appointment.

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## Centegra Weight-Loss Surgery Center

Located in the Centegra Health Center - Huntley, the Centegro Weight-Loss Surgery Center offers a multidisciplinary approach to significant weight loss for individuals when all other attempts at weight loss have failed. This is a comprehensive approach to the whole person that combines surgery with behavior-based counseling, exercise, nutritional counseling and life-long support to achieve the most effective results possible.



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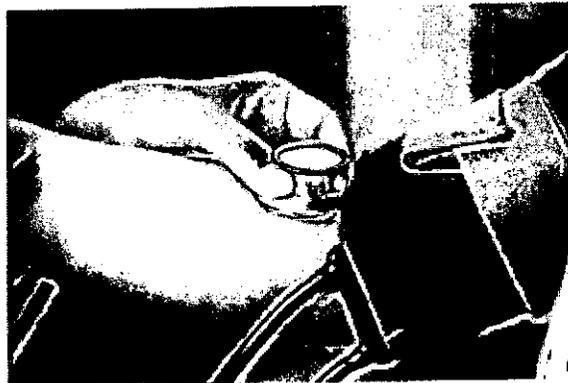
## Centegra Worksite Wellness programs promote healthy living

The decision to make a change in favor of a healthier lifestyle is a personal one and many seek motivation from external sources like Centegra Health System's Worksite Wellness Program. Participants in the program are encouraged to strive for their own personal goals while working with their co-workers and friends to achieve the best results.

Centegra Worksite Wellness benefits both the business that funds it and the employees who use it, and can be seen as a gift that keeps on giving. By investing in the health of their workers, employers show their commitment to the health and well-being of the people that make their business function. In return, Worksite Wellness is shown to benefit business through increased retention, reduced absenteeism, fewer, less costly claims, reduction in insurance rates and boost employee morale.

Norma Jensen, Human Resources Manager at GMI in Huntley, knows the impact of Centegra Worksite Wellness first hand. Just one year ago Jensen was 15 pounds heavier and less motivated to change her lifestyle habits.

Jensen began her journey with Worksite Wellness in June 2009 with the Walkabout Program that tracked her walking mileage for eight weeks. If the positive feelings she enjoyed with staying active wasn't enough motivation, when she found out her mileage added up to a walk around Australia, she decided the program was well worth it and continued



with the Holiday Meltdown Program. The friendly competition between co-workers served as motivation and inspiration for Jensen. After the Holiday Meltdown, she lost the most weight for females in her department.

One of the first decisions Jensen made once beginning work at Genesis Medical Imaging was to bring Worksite Wellness into their office. They have started the Invest in your Health program and Jensen said they have the rest of their programs outlined for the remainder of the year.

The biggest motivations for Jensen are the encouragement and help she receives from her co-workers; they help her stay motivated by sharing ideas and recipes.

"I also like the workbook provided by Centegra, along with the weekly and bi-weekly tips we receive from our Worksite Wellness Coordinator," Jensen said. "There is a midpoint, final session that

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## Centegra Worksite Wellness programs promote healthy living (cont.)

helps us track and measure our progress and a small celebration at the end of each program to congratulate individuals on their success, however big or small."

What sets Centegra Worksite Wellness apart for Jensen is the wide variety of wellness programs offered and their ability to meet the needs of several individuals throughout the year. She is now excited to stay active and continue her wellness journey with the help of her co-workers and Centegra Worksite Wellness.

Centegra Worksite Wellness is dedicated to developing creative solutions to fit individual needs. In addition to on-site wellness programming, similar to Jensen's experience, Worksite Wellness also offers Health Risk Appraisals, safety training, OSHA screenings, immunizations and vaccinations and Centegra Wellness on the Move mobile unit will visit on-site to give screenings for employees.

For additional information about any Centegra Worksite Wellness service, please visit [centegra.org/worksitewellness](http://centegra.org/worksitewellness) or call 815-788-5864.

# Centegra Health System holiday caravan spreads cheer

Centegra Health System helped spread its positive spirit with thousands of McHenry County community members by distributing more than \$4,000 in Jewel and Target gift cards and holiday baskets to four area non-profit agencies December 22.

On behalf of Centegra's 3,600 Associates, several executive team members visited and volunteered at the Salvation Army, Turning Point, Home of the Sparrow and Public Action to Deliver Shelter (PADS), a division of the Pioneer Center for Human Resources on Tuesday morning.

"Centegra's support could not have come at a better time," said Major John Price, Commanding Officer for the Salvation Army of McHenry County.

"While the support has been great this year, we are about 8 percent less than where we need to be at this time of the year; in regard to income," he added. "Our year-end giving program enables us to begin the new calendar year with adequate funding to assist area residents with the essentials, such as help so their utilities will not be shut off; and help with clothing, furnishings following a fire and much more. We sincerely appreciate Centegra Health System for making a difference in our community."

Centegra Chief Executive Officer Mike Eesley said, "We're very proud of our Centegra mojo, a positive spirit toward what we are doing now that starts on the inside and radiates to the outside. We're



thrilled to be able to share it with the community this holiday season."

This gift card and basket delivery is just one of many ways Centegra Associates are giving back to the community this year.

Thanksgiving dinner with all the trimmings was delivered to a single mother with three young children by Associates; an Adopt-a-Family campaign helped 36 people in seven different families in our community who are less fortunate and a holiday sock fashion show was conducted in the surgery department in which donations will be given to the McHenry County Food Pantry for fresh food items this holiday season. A diaper drive was also conducted earlier to donate to the new diaper pantry in McHenry County.

Many Associates donate time as Salvation Army bell ringers. Others will help with food and clothing drives and Christmas Clearinghouse. Through its mobile health

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## Centegra Health System holiday caravan spreads cheer (cont.)

unit, Wellness on the Move, Centegra also offers free health screenings in conjunction with Loaves and Fishes food distributions to the needy. In 2009, hundreds of area residents have prevented or detected a variety of complications because of a simple visit to the Centegra Wellness on the Move mobile health unit.

In addition, Centegra also makes yearly monetary contributions to 18 McHenry County Food Pantries on behalf of its board members, physicians and volunteers.

"We're very proud of our Associates for sharing their joyful spirits and passionate care not only within Centegra Health System but within the entire McHenry County community. I can see during these deliveries that their contribution to improving the health and wellness of our community is sincerely appreciated," Eesley added.

## Build-A-Bike: Leadership development becomes a bike shop

Centegra's unique approach to Associate training took a twist even our leaders didn't anticipate when they built 32 bicycles at a recent leadership development workshop.

The leaders were grouped in teams and they worked together to assemble the bikes. During the exercise, leaders gained insight, showcased teamwork and demonstrated an appreciation for listening and intelligent risk taking. They learned that attentiveness, dedication and concern are qualities they can bring to their work, their customers, their lives and their communities.

The 155 Centegra leaders and Guest Stars didn't know they were building bikes for deserving kids until the end of the program. When the bikes were assembled, the group was surprised to meet their "true customers." Thirty-two area children were welcomed with a standing ovation by the emotional Associates. The children, who were part of the Big Brothers Big Sisters program and Girls on the Run organizations, did not know they were going to receive bikes. Each team personally welcomed a child and presented her or him with a shiny new bike, a bike helmet and a cool bike lock.

"This element of surprise — the demonstration that good work creates unexpected benefits — is one of the most powerful lessons of team-building," said Centegra CEO Michael S. Eesley. "By creating something valuable and passing



it on, our team experienced firsthand the influence their actions, integrity, attention and intention have on their work. They recognized their impact on the lives of their co-workers, patients and community members. They also discovered how much they get in return from the simple act of giving."

Lori Kirkelie, manager of guest services, shared her thoughts after the development session.

"The anticipation and the unknown about today's session combined with the content and outcome is unprecedented, awesome, unbelievable, emotionally charged. I left today completely filled up and overflowing! Humbly and graciously, thank you."

AnnaMarie Gepperth, manager of Centegra Primary Care - Woodstock, says:

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## Build-A-Bike: Leadership development becomes a bike shop (cont.)

"Thank you for a great day. I love working for a company that continually inspires me, that values the community and all the people that are part of the community."

Lilli-Jayne Mariano, supervisor of the Rehabilitation Fitness Center, says:

"More! More! More of this kind of giving back! It fills us more than anything we've done before. Thanks for the experience!"

## Warm welcome thrills new nurse leader

Dee Tallon radiates happiness when she talks about her first few months as a Centegra Health System Associate. The new nurse leader of the Family Birth Center at Centegra Hospital – Woodstock, Dee clearly recalls her surprise when she received our new leader welcome package from Centegra Health System CEO Michael S. Eesley at her home just days after accepting our offer.

"I was so surprised to receive the box and a nice welcome letter from Mike," Dee says. "There was a DVD that talked about Centegra's values, and a nice leather binder. It was such a nice welcome before I even got here. My husband is the dean of a business college, and he was so impressed, too!"

On Dee's first day at the Family Birth Center, she was welcomed with a breakfast with the staff and the physicians. Staff members made a scrapbook so she could immediately get to know her team.

"The welcome was overwhelming," Dee says. "I moved here from Kentucky to take this job and I would call home and say I felt like they'd rolled out the red carpet for me."

One of Dee's first objectives was to set up voluntary individual meetings with her team members. She says she wanted to know their goals, their future plans and what they considered to be the strengths and weaknesses of the department. She ended each meeting by inviting the



Associate to hold her to the same standards of accountability that she would expect from team members.

"I want them to talk to me about the way I do things because we're a team," she says.

To make sure every Associate feels her support, Dee often gets to work at 6 a.m. to see the people who work the night shift.

"They are important to our group and they may feel left out," Dee says. "I will come in to see Associates on the weekends because they need to see me, to trust me and to feel comfortable talking to me. I need to role model the behaviors I believe in over and over so it builds that trust."

Although she has been a nurse leader for more than 15 years, Dee says Centegra's culture is completely unique. She says she

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## Warm welcome to its new nurse leader

has time to build relationships, and she sees how happy Associates provide better patient care.

"I am so impressed with this staff," she says. "This is by far the best group of people I've ever worked with. Throughout the hospital, people have smiles on their faces and acknowledge each other. It's inclusive, and I love the managing up." (At Centegra, we manage up by speaking highly of each other at all times.)

As a nurse, Dee appreciates how hands-on caregivers are asked to contribute to process improvement at Centegra. They take part in shared governance, which calls on the expertise of the nurses to improve practices and quality of care.

There will soon be a change in the Family Birth Center as the department adds new permanent charge nurse positions. Dee says her hiring decisions will be guided by the same Centegra values that helped her get her own job. She says each prospective permanent charge nurse will go through a peer interview process and will also interview with physicians.

"Those interviews will weigh heavily in the decision-making process," Dee says. "The charge nurses need to fit the culture of our department and the culture of Centegra. It is critical that they are respected because it will affect everything we do, all the way to patient care and patient outcomes."

Dee says she feels accepted, secure and confident in her role at Centegra Health System because of her supportive work environment.

"I love coming to work each day," she says. "I always want to tell my team and the people I report to, 'Thank you for allowing me to bring my joyful spirit to work.'"

## Centegra events reflect community spirit

As part of our mission to promote wellness for the greater McHenry County area, Centegra Health System planned, supported or participated in more than 260 events throughout the community in fiscal year 2010. Here are just a few examples:

Centegra Diabetes Fair-November 2009

Holiday Giving Caravan-December 2009

Centegra Health Strong  
Woman Event-February 2010

Centegra Gavers Breast  
Center Announced-April 2010

Centegra Expands to CPC-  
Algonquin -April 2010

Centegra Breastfeeding Resource  
Center Opening-June 2010

Centegra Family Health Fest-July 2010

Centegra Welcomes Pink Fire Trucks  
for Cancer Awareness-August 2010

Taste of Home Cooking Show-  
September 2010

Centegra Hyperbaric and Wound  
Center Opening-September 2010

Centegra Gavers Breast  
Center Opening-October 2010



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## Centegra rolls out new patient express van

Bill Breitzke of Lake in the Hills was always a generous person. He took his friends camping and salmon fishing on Lake Michigan and took his niece and nephew on vacations to Hawaii and Alaska. He also funded a patient express van for Centegra Health System that was introduced to the community May 4.

When Bill's old college friend Eileen lost her husband, he helped her navigate the maze of paperwork that follows a death. Then, after a time, they became more than friends. "We reconnected," Eileen said. "It's truly a love story."

They were both in their early 60s when they embarked on their storybook romance. Bill, a lifelong bachelor, asked Eileen to marry him and she said yes. They'd only been married about eight months when their story took an unexpected turn. Bill was diagnosed with brain cancer.

After Bill's first symptom of loss of feeling in his leg their life transformed into a whirlwind of doctor visits and testing. The cancer led Bill to Evanston for surgery.

"It turned out well but we didn't feel at home there," Eileen said. "It's a big hospital, kind of cold."

They found just the opposite when they sought treatment at the Centegra Sage Cancer Center at Centegra Hospital - McHenry. Bill had several months of radiation and chemotherapy there and the



sessions seemed almost like visiting with family.

"It was actually a happy time," Eileen said. "They were so great. We'd talk about the cancer, sure. We also got to know the staff, learn about their kids and their lives. It was very personal."

Centegra also provided Bill with other services, such as transportation to and from radiation therapy and physical therapy in his home. Although he felt good for nearly a year, he eventually needed more surgery. This time he didn't do as well.

"When he knew he didn't have much time left, we sat down and talked about what he wanted to do," Eileen said.

True to Bill's nature, that didn't mean an extravagant trip or expensive purchases. It meant giving what he could to the places that needed and deserved it most. Also true to his nature, Bill did his research.

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## Centegra rolls out new patient express van (cont.)

"He asked Dr. Terrence Bugno, one of Centegra's radiation oncologists, what special project he'd like to see accomplished," Eileen said.

That turned out to be free massage therapy for cancer patients after their chemotherapy. Bill's charitable gift has funded that project.

Bill's many gifts also included funding an additional patient express van for transporting patients to appointments at Centegra, a service that is close to Eileen's heart. It had been a great convenience for them during Bill's treatment.

"It would have been a 45-minute drive in the dead of winter for us," she said. "I was really worried but they just picked us up."

Bill made his donation through the Centegra Health System Foundation, which makes a difference in the lives of thousands of Centegra patients. All donations go directly to support Centegra Health System. Just as with Bill, the satisfaction of giving goes directly to the community.

"He lived a good, generous life," Eileen said. "He gave back what he could."

# Foundation Donor List 2010

**Visionaries - (\$1,000,000.00 + )**  
 †George and †Ruth Frejd

**Partners - (\$250,000.00 + )**  
 Auxiliary to Centegra  
 Hospital - Woodstack  
 †William and Eileen Breitzke

**Diamond - (\$100,000.00 + )**  
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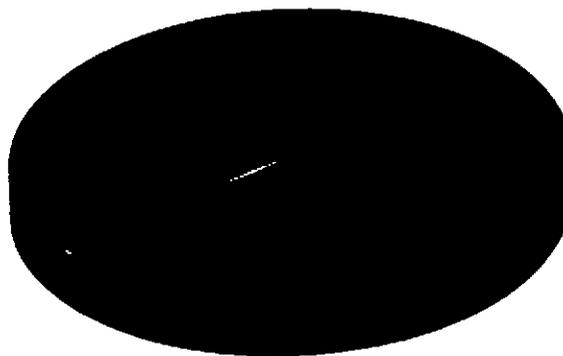
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 Judith A. Wirfs  
 Yvonne Yao, M. D.  
 Frank and Katherine Zemba

\* Current Pledge of 10,000+  
 † Deceased

# Financials 2010

Associates	3,695
Babies born	1,919
Behavioral health outpatient sessions	6,066
Calls to 1-877-CENTEGRA	15,193
Cardiac cath procedures	2,924
Centegra Health Bridge Fitness Center members	14,946
Centegra Primary Care (CPC) Physicians	61
CPC hours volunteered at Family Health Partnership Clinic	504
Companies served by occupational medicine	735
Emergency department visits	67,706
Flight for Life flights	410
Home health visits	33,146
Hospital beds	363
Immediate care center visits	23,067
Open heart surgeries	153
Outpatient imaging procedures	139,627
Outpatient laboratory procedures	443,630
Patients admitted to hospitals	19,315
Physicians on staff	475
Sleep lab procedures	1,215
Surgeries	13,778
Visits to www.centegra.org	360,675
Volunteer hours (to Centegra)	53,833
Wellness program attendees	21,302



50%	Labor
14%	Supplies and Drugs
18%	Purchased Services and Other
5%	Capital Cost
8%	Provision for Uncollectible
2%	Repairs and Maintenance
1%	Insurance
2%	Funds Reserved for Future

## Charity Care

Unpaid Medicare Costs	\$17,766,000
Unpaid Medicaid Costs	\$13,501,000
Charity Care (Charges)	\$18,339,000
Educational Programs	\$1,067,000
Other Community Benefits	\$2,660,000
<b>Total Community Benefits</b>	<b>\$53,333,000</b>

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# Centegra Executives & Boards

Aaron Shepley  
Senior Vice President Administrative  
Services, Corporate Counsel

Barbara Jo Johnson  
Senior Vice President Human  
Resource Development

Susan Milford  
Senior Vice President Strategic  
Marketing, Planning and Wellness

Gail Rudolph  
Vice President Development

David Tamlinson  
Vice President Operations

Ted Lorenc  
Vice President Medical Affairs

Suson Murphy  
Vice President and Chief  
Nursing Officer

Matthew Towler  
Vice President Support Services

Rachel Sebastian  
Vice President Service Line Operations

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Christian Newkirk, Chairman  
Charlie Zanck, Vice Chairman  
William Cox, MD, Secretary  
Pat Morehead, Treasurer

**Board Members**  
Terrence Bugno, MD  
Tom Carey  
Michael Curran  
Michael Easley  
Laurence Gatt, MD  
Paul Hills  
Luke Johnsos  
Angelo McAuley  
Sanjukta Mitro, MD  
Parmod Narang, MD  
Jack Porter  
Kathy Powell  
Charles Ruth

**Ex-officio**  
Ifzal Bangash, MD  
Arun Narang, MD

**Foundation Board of Directors**  
Tam Carey, Chairman  
Daniel Lemanski, Vice Chairman  
Stacia Hahn, Secretary/Treasurer

**Board Members**  
Karla Dabbeck  
Daniel Dreher  
Megan Francois  
David Kielpinski  
Peter Michling  
Anthony Pintozi, Sr.  
Steve Ronkins  
Eric Ruth  
Michael Splitt

**NIMED Board of Directors**  
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Christopher Bennett, Vice Chairman  
Jack Porter, Secretary/Treasurer

**Board Members**  
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Terrence Bugno, MD  
William Cox, MD  
Gary Robine

**Centegra Management Services  
Board of Directors**  
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Michael Curran, Vice Chairman

**Board Member**  
Josan Sciarro

**Centegra Primary Care  
Board of Directors**  
Linda Alic, MD, Chairman  
Joanne Knapik, MD, Vice Chairman

**Board Members**  
Dudley Brown, Jr., MD  
Tom Carey  
Parmod Narang, MD  
Jason Sciarro

## New Members of the Centegra Boards

**Foundation Board**  
Elissa Brebech, MD  
Nick Kachiroubas

**Auxiliary, Centegra Hospital-  
Woodstock**  
Sally Welter, President  
Laura Witlox, Vice President  
Terri Deuerling, Treasurer  
Marian Andersan, Recording Secretary  
Gloria Timmins, Corresponding  
Secretary

**Board Members**  
Ginny Deuerling  
Therese Duffy  
Jan Goebel  
JoAnn Griffin  
Dee Hartlieb  
Meaghan Haak  
Pat Sechan  
Nancy Storms  
Esther Vadnais

**Auxiliary, Centegra Hospital-McHenry**  
Vicki Nielsen, President  
Gail Anderson, Vice President  
Neida Rechisky, Treasurer  
Sandi Heffelfinger,  
Recording Secretary  
Judy White, Corresponding Secretary

**Board Members**  
Gene Abel  
Jane Byrnes  
Pat Colomer  
Aostri Cunat  
Andrea Franzen  
Callie Harms  
Sharon Lone  
Kathleen Moehling  
Pam Richard  
Helen Spencer  
Joan Teichmiller  
Ti Weichle

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**XII. Charity Care Information**

1. Centegra Health System, a co-applicant for this project, is the sole corporate member of Centegra Hospital – McHenry, Centegra Hospital – Woodstock, and Centegra Specialty Hospital – Woodstock, South Street.

The charts presented below document the amount of charity care for the last 3 audited fiscal years, the cost of charity care, and the ratio of that charity care cost to net patient revenue for each of these hospitals.

**Centegra Hospital - McHenry**

	<b>FY2007</b>	<b>FY2008</b>	<b>FY2009</b>
Net Patient Revenue	\$209,120,902	\$223,918,989	\$241,767,250
Amount of Charity Care (charges)	\$4,088,494	\$4,697,432	\$7,162,540
Cost of Charity Care	\$1,394,176	\$1,503,178	\$2,200,332
Ratio of Charity Care Cost to Net Patient Revenue	0.7%	0.7%	0.9%

**Centegra Hospital - Woodstock**

	<b>FY2007</b>	<b>FY2008</b>	<b>FY2009</b>
Net Patient Revenue	\$117,129,225	\$119,618,103	\$128,521,738
Amount of Charity Care (charges)	\$2,319,782	\$3,883,291	\$4,589,044
Cost of Charity Care	\$860,639	\$1,413,518	\$1,683,720
Ratio of Charity Care Cost to Net Patient Revenue	0.7%	1.2%	1.3%

**Centegra Specialty Hospital – Woodstock South Street**

	<b>FY2007</b>	<b>FY2008</b>	<b>FY2009</b>
Net Patient Revenue	\$14,031,799	\$15,188,329	\$13,719,552
Amount of Charity Care (charges)	\$99,452	\$76,420	\$236,405
Cost of Charity Care	\$36,897	\$27,817	\$86,737
Ratio of Charity Care Cost to Net Patient Revenue	0.3%	0.2%	0.6%

2. The reporting provided on the charts above is for each individual facility.
3. Centegra Hospital – Huntley, the other co-applicant, is not an existing facility.

Charts showing Centegra Hospital – Huntley's projected patient mix by payor source, anticipated charity care expense, and projected ratio of charity care to net patient revenue for its first two years of operation are found on the next page.

**Centegra Hospital – Huntley**  
**Projected Patient Mix by Payor Source**  
**Gross Revenue**

	<b>FY2017</b>	<b>FY2018</b>
Medicare	36.6%	37.7%
Medicaid	9.4%	9.5%
Other Public	0%	0%
Private Insurance	52.0%	50.7%
Private Pay	0.3%	0.4%
Charity Care	1.7%	1.7%
Total	100.0%	100%

**Centegra Hospital – Huntley**

	<b>FY2017</b>	<b>FY2018</b>
Projected Net Patient Revenue	\$192,624,000	\$254,309,000
Projected Charity Care Expense	\$3,642,000	\$4,910,000
Projected Ratio of Charity Care to Net Patient Revenue	1.89%	1.93%