



Office of Health Care Access Certificate of Need Application

Final Decision

Applicant: Yale-New Haven Hospital

Docket Number: 08-31187-CON

Project Title: Adult Emergency Department Modernization Project and Acquisition of an Additional 64-Slice Computed Tomography Scanner

Statutory Reference: Section 19a-639 of the Connecticut General Statutes

Filing Date: October 24, 2008

Hearing Waived: December 16, 2008

Decision Date: January 22, 2009

Default Date: January 22, 2009

Staff Assigned: Diane Duran
Jack A. Huber

Project Description: Yale-New Haven Hospital proposes to undertake a facilities project to modernize its Adult Emergency Department and acquisition of an additional computed tomography scanner at a total capital cost of \$76,000,000.

Nature of Proceedings: On October 24, 2008, the Office of Health Care Access (“OHCA”) received the Certificate of Need (“CON”) application from Yale-New Haven Hospital (“Hospital”) seeking authorization to undertake a facilities project to modernize its Adult Emergency Department and acquisition of an additional computed tomography scanner at a total capital cost of \$76,000,000. The Hospital is a health care facility or institution as defined by Section 19a-630 of the Connecticut General Statutes (“C.G.S.”).

A notice to the public concerning OHCA’s receipt of the Hospital’s Letter of Intent to file its CON application was published in the *New Haven Register* on June 28, 2008, pursuant to Section 19a-639, C.G.S. OHCA received no responses from the public concerning the

Hospital's proposal. Pursuant to Section 19a-639, C.G.S, three individuals or an individual representing an entity with five or more people had until November 14, 2008, the twenty-first calendar day following the filing of the Hospital's CON application, to request that OHCA hold a public hearing on the Hospital's proposal. OHCA received no hearing requests from the public.

On June 13, 2008, the Hospital requested a waiver of hearing pursuant to Section 19a-643-45 of the OHCA's Regulations. The request was made based on the grounds that the CON application is non-substantive as defined in Section 19a-643-95(3) of OHCA's Regulations. OHCA determined that the CON application was eligible for consideration of waiver of hearing pursuant to Section 19a-643-45 of OHCA's Regulations. A notice to the public concerning OHCA's receipt of the Hospital's request for waiver of hearing was published in the *New Haven Register* on December 5, 2008, pursuant to Section 19a-639, C.G.S. OHCA received no response from the public concerning the Hospital's request for waiver of hearing. On December 16, 2008, OHCA determined that the Hospital's request for waiver of hearing be granted based upon the reason specified by the Hospital.

OHCA's authority to review and approve, modify or deny the CON application is established by Section 19a-639, C.G.S. The provisions of this section, as well as the principles and guidelines set forth in Section 19a-637, C.G.S., were fully considered by OHCA in its review.

Findings of Fact

Clear Public Need

Impact of the Proposal on the Hospital's Current Utilization Statistics **Proposal's Contribution to the Quality of Health Care Delivery in the Region** **Proposal's Contribution to the Accessibility of Health Care Delivery in the Region**

1. Yale-New Haven Hospital ("Hospital") is an acute care hospital located at 20 York Street in New Haven. (*September 24, 2008, Initial CON Application, page 9 and Appendix XI, page 214*)
2. The Hospital is the primary teaching hospital for the Yale University School of Medicine and a major community hospital for residents of the greater New Haven area. It offers a full array of primary to quaternary patient services. (*September 24, 2008, Initial CON Application, page 26*)
3. The Hospital's Adult Emergency Department ("ED") is one of two Level I Trauma Centers in Connecticut. The ED provides urgent and emergency medical, surgical and behavioral health care to patients twenty four hours per day, seven days per week. (*September 24, 2008, Initial CON Application, page 26*)

4. The Hospital is proposing to undertake a facilities project that will modernize the Adult ED of the South Pavilion by accomplishing the following: *(September 24, 2008, Initial CON Application, Cover Letter and pages 10 and 11)*
 - New construction of a three level building project to the existing structure of the South Pavilion;
 - Renovation plan on the (1st) first floor of the Adult ED;
 - Acquisition and operation of an additional 64-slice CT scanner for the use of trauma specific patients; and
 - Provision for shelved in space for future use on the (2nd) second and (3rd) third floors.
5. The Hospital identifies the following towns as constituting its primary service area (“PSA”): *(September 24, 2008, Initial CON Application, page 12 and Appendix 1, page 35)*

Table 1: PSA Service Area

Ansonia	Clinton	Essex	Madison	North Haven
Bethany	Deep River	Guilford	Meriden	Old Saybrook
Branford	Derby	Hamden	Milford	Orange
Cheshire	East Haven	Killingworth	North Branford	Oxford
Seymour	Wallingford	West Haven	Westbrook	Woodbridge

Adult Emergency Department

6. The Hospital indicates that the South Pavilion was built in a land-locked location 25 years ago in 1983. The facility is outdated and undersized, patient flow and staff circulation patterns are disjointed, and more patients are seeking care. *(September 24, 2008, Initial CON Application, pages 12 & 13)*
7. On July 2004, the ED had undertaken numerous initiatives to alleviate some of the constraints, including the opening of the Shoreline Medical Center ED. The volumes grew steadily but not enough to lessen the main campus ED volumes. *(September 24, 2008, Initial CON Application, pages 13 & 14)*
8. The Hospital also pursued several other process improvement projects that included “Use Lean Tools to Decrease Patient Wait Time in Adult ED”. The initiatives had improved operational throughput, but was insufficient in gaining adequate capacity to treat the volume of patients. *(September 24, 2008, Initial CON Application, page 14)*
9. The Hospital states that the Adult ED was designed for 75,000 visits and currently sees over 100,000 visits per year. *(September 24, 2008, Initial CON Application, Appendix V, page 49)*

10. The Hospital identifies the following department constraints: *(September 24, 2008, Initial CON Application, page 10)*
 - a) Clinical staff ability to treat patients in a timely manner has been impeded by the limited physical size of the current facility;
 - b) Patient wait time has increased;
 - c) Lack of patient privacy due to inadequate capacity and close proximity of patients to one another; and
 - d) Limited capacity to support mass casualty care surge needs and to respond to mass disasters and bioterrorist events.
11. The Hospital states that the Adult ED staff is confined to a 200 square-foot nursing station that must accommodate 20-25 staff members. Access to computing facilities is limited and staff often works in tight quarters. *(September 24, 2008, Initial CON Application, page 11)*
12. The Hospital states that the existing support space is inadequate for management of supplies, required equipment, and consultation space. The lack of adequate space hampers the ability to adopt technologies that would support an enhanced material management process. *(September 24, 2008, Initial CON Application, page 14)*
13. The Hospital indicates that the Adult ED project design will address patient privacy issues, including patient care areas that are currently separated by curtains; lack of adequate family waiting spaces; inconsistent fire safety adherence; limited patient bathroom access; and inadequate call bell access for patients. *(September 24, 2008, Initial CON Application, page 11)*
14. The Hospital states that the proposed Adult ED project will provide mass triage and mass decontamination abilities, and increased ambulance/drop-off capacity. *(September 24, 2008, Initial CON Application, page 11)*
15. The Hospital further states that the proposed Adult ED project will be built to reduce cross-infection/contamination and provide scalability to meet surge capacity, thereby allowing it to fulfill its responsibility as a regionally and nationally recognized leader in disaster preparedness. *(September 24, 2008, Initial CON Application, page 11)*
16. The Hospital states that the Adult ED will include an addition of approximately 20,000 square feet of new construction that will improve patient flow of the ambulance triage. *(September 24, 2008, Initial CON Application, page 11)*
17. Additionally, the Hospital's Adult ED will include approximately 32,000 square feet of renovation of the trauma, triage and waiting areas. *(September 24, 2008, Initial CON Application, pages 11 & 28)*
18. The space above the Adult ED will include approximately 6,300 square feet of new construction on level two and three to be shelled space. *(September 24, 2008, Initial CON Application, pages 11 & 28)*

19. The following table illustrates the existing and proposed number of Adult ED treatment stations by sub-service: *(September 24, 2008, Initial CON Application, page 16)*

Table 2: Adult ED Treatment Space

Treatment Space	Current Beds	Proposed Beds	Variance
General Acute Care	26	57	27
Fast Track	4		
Crisis Intervention Unit (Psychiatry)	8	12	4
Chest Pain Center	4	6	2
Trauma	2	4	2
Total	44	79	35

20. The Hospital proposes that the Adult ED will incorporate a flexible, adaptable new room design that will include two zone areas as follows:
- One zone will be critical and acute patient care area, including six rooms to be built for safe care of the psychiatric patients during peak Crisis Intervention Unit (CIU) times; and
 - The other zone will be acute and subacute patient care area that will replace the current Fast Track.

Additional CT Scanner in the ED

21. The Hospital was authorized by OHCA on February 22, 2008 to relocate its 4-slice CT scanner in the ED to the Radiology Department and acquire a 64-slice CT scanner for use in the Hospital's ED under DN 07-30963-CON. *(February 22, 2008, Final Decision under DN 07-30963-CON, page 11)*
22. On November 21, 2008, the Hospital notified OHCA of the installation of the new 64-slice CT scanner for use in the ED, which became operational on November 5, 2008. *(November 21, 2008, Cover Letter Regarding DN 07-30963-CON, page 1)*
23. The Hospital reports that the actual ED CT scan volume for FYs 2006 through 2008 is 34,623, 35,333 and 32,598 respectively. *(January 21, 2009, Additional Information Responses, page 270)*
24. The following table illustrates the projected ED CT scan volume for FY 2009 and FYs 2010 through 2012: *(January 21, 2009, Additional Information Responses, page 270)*

Table 3: Projected ED Computed Tomography Volumes by Scanner

Description	FY 2009*	FY 2010	FY 2011	FY 2012
64-Slice Regular CT Scanner	27,560	25,938	26,197	26,459
64-Slice Trauma CT Scanner	Proposed	7,316	7,389	7,463
Total ED CT Scans	27,560	33,254	33,586	33,922

Note: * FY 2009 volume is annualized based on three months of actual information.

25. The Hospital states the projected volume of trauma scans for FY 2009 through 2012 is based on the historic growth rate of the volume of scans performed on the 4-slice CT scanner. *(January 21, 2009, Additional Information Responses, page 268)*
26. According to the Hospital 22% of patients scanned on the ED CT scanner are trauma patients. As a result, this causes an interruption of ED patient flow on the existing scanner. This delay of CT scanning services includes the time necessary to scan the trauma patients and clean the scanner. *(September 24, 2008, Initial CON Application, page 12)*
27. The Hospital identifies that the proposed new 64-slice CT scanner was selected for the following factors: *(September 24, 2008, Initial CON Application, page 1)*
- The CT scanner will be dedicated to ED trauma patients; and
 - The CT scanner will allow critical trauma patients to be imaged and treated without leaving the ED.
28. The Hospital states that as a Level I Trauma Center and a high volume ED, availability of a trauma-specific CT scanner will alleviate scanner bottlenecks during the ED's frequent period of high volumes. *(September 24, 2008, Initial CON Application, page 12)*
29. In addition the Hospital explains that the proposed 64-slice CT scanner was determined as follows: *(September 24, 2008, Initial CON Application, pages 18 & 19, and January 21, 2009, Additional Information Responses, page 268)*
- The CT scanner for trauma patients will free valuable capacity on the ED scanner and allow for more timely imaging for ED patients;
 - Given the Hospital's role, its increasing trauma volume, and the need to provide trauma patients to be imaged immediately on an CT scanner will be improved;
 - Without a dedicated trauma CT scanner potential conflicts arise, particularly given the protocol that trauma patients take priority over non-trauma ED patients for emergency CT scanning or in the event of multiple trauma patients requiring imaging at the same time.

Shell Space

30. The Hospital states that the 2nd and 3rd floors of the proposed addition will be shell space for future clinical use. *(September 24, 2008, Initial CON Application, page 28)*
31. The Hospital indicates that the space may be used for the following functions as follows: *(June 13, 2008, LOI Form, page 8, September 24, 2008, Initial CON Application, pages 28 and 29)*
- a. 2nd Floor: Future space to relocate and expand the core adult interventional radiology, neuro-interventional radiology, cardiac catheterization and electrophysiology services at approximately 4,300 square feet; and
 - b. 3rd Floor: Future space to provide imaging operating room services at approximately 2,000 square feet.

**Financial Feasibility and Cost Effectiveness of the Proposal and its Impact on the Hospital's Rates and Financial Condition
 Impact of the Proposal on the Interests of Consumers of Health Care Services and the Payers for Such Services
 Consideration of Other Section 19a-637, C.G.S. Principles and Guidelines**

32. The total project capital cost is \$74,000,000 and is itemized as follows: *(September 24, 2008, Initial CON Application, pages 27 and October 24, 2008, Completeness Responses, Appendix II, pages 262 through 265)*

Table 4: Project Cost Itemization

Description	Component Cost
Medical Equipment Purchase	\$12,000,000
Imaging Equipment Purchase	\$2,000,000
Construction/Renovation	\$62,000,000
Total Capital Cost	\$76,000,000

33. The Hospital's new construction and renovation costs are itemized in the following table: *(September 24, 2008, Initial CON Application, page 28)*

Table 5: Cost Itemization

Description	New Construction	Renovation	Total Cost
Building Work	\$24,068,193	\$18,606,807	\$42,675,000
Site Work	\$2,325,000	\$ -	\$2,325,000
Architectural & Engineering	\$2,255,950	\$1,744,050	\$4,000,000
Contingency	\$5,076,000	\$3,924,000	\$9,000,000
Inflation Adjustment	\$ -	\$4,000,000	\$4,000,000
Total Building Costs	\$33,725,143	\$28,274,857	\$62,000,000

34. The Hospital's construction and renovation is scheduled as follows: *(September 24, 2008, Initial CON Application, page 29)*

Table 6: Schedule

Description	Date
Construction Commencement Date	April, 2009
New Construction Completion Date	September, 2010
Renovation Completion Date	October, 2011

35. The Hospital's proposed construction and renovation will happen in phases so that it will not impact delivery of patient care in the ED. *(September 24, 2008, Initial CON Application, page 29)*

36. The Hospital's proposed project will consist of approximately 58,300 square feet as follows: *(September 24, 2008, Initial CON Application, page 28)*

Table 7: Project Space

Description	New Construction	Renovation	Total Sq. Ft.
Level One	20,000	32,000	52,000
Level Two	4,300	0	4,300
Level Three	2,000	0	2,000
Total Square Feet	26,300	32,000	58,300

Note: New construction will occur within existing overhang space directly to the exterior of the existing Adult ED. Phase 1 is site development of new ambulance parking and patient drop off with some minimal onsite parking. The second phase will be the new construction of levels one through three. Phases 3 and 4 will be renovation of the existing Adult ED.

37. The Hospital anticipates that it will finance the project through the following sources: *(September 24, 2008, Initial CON Application, pages 30 and 31 and Attachment XV, page 245)*
- Operating funds of \$2,800,000;
 - Funded Depreciation of \$11,200,000; and
 - Bond Issuance of \$62,000,000 through the Connecticut Health and Educational Facilities Authority ("CHEFA") which provided the Hospital a letter of interest.

38. The Hospital's projected incremental revenue from operations, total operating expense and loss from operations associated of the proposal is presented in the table below: *(September 24, 2008, Initial CON Application, page 32 and Appendix XVI, pages 247 and 248)*

Table 8: Incremental Financial Projections with the Project

Description	FY 2009	FY 2010	FY 2011	FY 2012
Incremental Revenue from Operations	\$0	\$0	\$0	\$0
Incremental Total Operating Expense	\$3,196,000	\$5,259,000	\$7,062,000	\$7,030,000
Incremental Loss from Operations	(\$3,196,000)	(\$5,259,000)	(\$7,062,000)	(\$7,030,000)

39. The projected incremental losses from operations from FYs 2009 through 2012 are primarily due to increased interest expense and depreciation expense associated with the project. *(September 24, 2008, Initial CON Application, page 33 and Appendix XIV, page 240)*
40. The Hospital's projected overall gain from operations with the CON proposal is \$43,604,000, \$19,867,000, \$19,919,000 and \$21,900,000 for FYs 2009 through 2012, respectively. *(September 24, 2008, Initial CON Application, page 32 and Appendix XVI, pages 247 and 248)*

41. The current and projected payer mix percentages for the first three years of the proposed modernization of the Adult Emergency Department is as follows:
(September 24, 2008, Initial CON Application, page 32)

Table 9: Hospital's Current and Projected Payer Mix

Description	Current	Year 1	Year 2	Year 3
Medicare	29.6%	29.3%	28.5%	27.4%
Medicaid	11.4%	12.3%	12.3%	12.3%
TriCare (CHAMPUS)	0.7%	0.6%	0.6%	0.6%
Total Government	41.7%	42.2%	41.4%	40.3%
Commercial Insurers	51.5%	50.8%	51.6%	52.7%
Uninsured	5.5%	5.8%	6.0%	6.0%
Workers Compensation	1.3%	1.2%	1.0%	1.0%
Total Non-Government	58.3%	57.8%	58.6%	59.7%
Total Payer Mix	100.00%	100.00%	100.00%	100.00%

42. There is no State Health Plan in existence at this time. (September 24, 2008, Initial CON Application, page 10)
43. The Hospital has adduced evidence that this proposal is consistent with its long-range plan. (September 24, 2008, Initial CON Application, page 10)
44. The Hospital has improved productivity and contained costs by participating in activities involving the application of new technology and energy conservation and by employing group purchasing practices in its procurement of supplies and equipment. (September 24, 2008, Initial CON Application, page 25)
45. The proposal will not result in any change to the Hospital's teaching and research responsibilities. (September 24, 2008, Initial CON Application, page 26)
46. The Hospital's current patient/physician mix is similar to that of other quaternary care hospitals. The proposal will not result in any change to this mix. (September 24, 2008, Initial CON Application, page 26)
47. The Hospital has sufficient technical and managerial competence to provide efficient and adequate services to the public. (September 24, 2008, Initial CON Application, page 25 and Appendix X, pages 178 through 212)
48. The Hospital's rates are sufficient to cover the proposed capital expenditure and operating costs. (September 24, 2008, Initial CON Application, page 27 and Appendix XII, pages 216 through 220)

Rationale

The Office of Health Care Access (“OHCA”) approaches community and regional need for Certificate of Need (“CON”) proposals on a case by case basis. CON applications do not lend themselves to general applicability due to a variety of factors, which may affect any given proposal; e.g. the characteristics of the population to be served, the nature of the existing services, the specific types of services proposed to be offered, the current utilization of services and the financial feasibility of the proposal.

Yale-New Haven Hospital (“Hospital”) is an acute care hospital located at 20 York Street in New Haven, Connecticut. The Hospital is the primary teaching hospital for the Yale University School of Medicine and a major community hospital for residents of the greater New Haven area. It offers a full array of primary to quaternary patient services. The Hospital is proposing to undertake a facilities project that will modernize its Adult Emergency Department and acquisition of computed tomography scanner.

The major components of the Adult Emergency Department (“ED”) project include: expansion of the Adult ED by new construction of a three level building to the existing structure of the South Pavilion, renovation of the first floor of the Adult ED, and acquisition of a 64-slice computed tomography (“CT”) scanner for the use of trauma patients. Additionally, the Hospital is proposing to shell-in space for future use on the second and third floors above the Adult ED.

Adult Emergency Department

The Hospital’s South Pavilion was built in a land-locked location 25 years ago in 1983. The facility is outdated and undersized, patient flow and staff circulation patterns are disjointed. The Hospital’s Adult ED was designed for 75,000 visits and currently sees over 100,000 visits per year.

The Adult ED project will include an expansion of a three level building that will consist of a total of approximately 58,300 square feet of new construction and renovations. The new construction on level one will include approximately 20,000 square feet that will improve patient flow of the ambulance triage space. Additionally, the Hospital’s Adult ED project will include renovation work of the trauma, triage and waiting areas on level one of approximately 32,000 square feet. The project will also include approximately 6,300 square feet of new construction on level two and three to be shelled for future use.

The proposal will address patient privacy issues, will improve mass triage and mass decontamination abilities, and increase ambulance drop-off capacity. The Hospital’s Adult ED proposal will incorporate a flexible, adaptable new room design that will include two zone areas. One zone will be critical and acute patient care area, including six rooms to be built for safe care of the psychiatric patients during peak Crisis Intervention Unit times. The other zone will be acute and subacute patient care area that will replace the current Fast Track.

OHCA concludes that the Hospital has provided sufficient evidence that the proposal will enhance the Adult ED's capacity to deliver appropriate patient care in a timely fashion and that it will improve the overall quality of and access to care for patients utilizing the emergency department. The project is scheduled to be completed in October 2011 and has been designed in a manner that will allow for Hospital services to be provided in an uninterrupted fashion.

Additional CT Scanner in the ED

The Hospital proposes to add a new GE, LightSpeed VCT XT 64-slice CT scanner for trauma specific patients located adjacent to the ED trauma bays. The Hospital recently installed and currently operates a new 64-slice CT scanner to meet the Hospital's ED volume and needs.

As the Hospital is a Level I Trauma Center with high ED patient volumes the Hospital's actual ED CT scan volume for FYs 2006 through 2008 is 34,623, 35,333 and 32,598 respectively. The Applicant has provided sufficient evidence that a second 64-slice CT scanner dedicated to trauma patients will improve the timeliness and quality of care for all ED patients requiring CT scanner services.

The total capital expenditure for the proposal is \$76,000,000. The Hospital will finance the project through operating funds and funded depreciation. It will include a bond issuance through the Connecticut Health and Educational Facilities Authority ("CHEFA"). The Hospital's projected overall gain from operations with the CON proposal is \$43,604,000 \$19,867,000 \$19,919,000 and \$21,900,000 for FYs 2009 through 2012, respectively. Therefore, OHCA finds that the Hospital's proposal is financially feasible and cost-effective.

ORDER

The proposal of Yale-New Haven Hospital (“Hospital”) to undertake a facilities project to modernize its Adult Emergency Department (“ED”) and acquisition of an additional computed tomography scanner on the Hospital campus at a total capital cost of \$76,000,000 is hereby **approved** and is subject to the following conditions.

1. This authorization shall expire on October 22, 2012. Should the Hospital’s project not be completed by that date, the Hospital must seek further approval from OHCA to complete the building project beyond that date.
2. The Hospital shall not exceed the approved capital cost of \$76,000,000. In the event that the Hospital learns of potential cost increases or expects that final project costs will exceed those approved, the Hospital shall immediately notify OHCA.
3. With respect to the acquisition of the 64-slice CT scanner, the Hospital shall notify OHCA regarding the following information in writing by no later than one month after the equipment becomes operational:
 - a) The name of the imaging equipment manufacturer;
 - b) The model name and description of the equipment; and
 - c) The initial date of the operation of the equipment.
4. A separate Letter of Intent will be submitted to OHCA once optimal space configurations for the second and third floor have been determined.
5. Should the Hospital propose any change in the project, the Hospital shall file with OHCA a Certificate of Need Determination Request or Certificate of Need letter of Intent regarding the proposed change.

Should the Hospital fail to comply with any of the aforementioned conditions, OHCA reserves the right to take additional action as authorized by law. All of the foregoing constitutes the final order of the Office of Health Care Access in this matter.

By Order of the
Office of Health Care Access

Signed by Commissioner Vogel on January 22, 2009

Date

Cristine A. Vogel
Commissioner

CAV: dd;jh