NMC
NORTHWESTERN MEDICAL CENTER

Donna Jerry
Senior Health Policy Analyst
Green Mountain Care Board
144 State Street
Montpelier, Vermont 05602

June 27, 2019

Dear Ms. Jerry:

Attached please find Northwestern Medical Center's (NMC's) Certificate of Need application for our "Emergency Department Modernization Project" (Docket No. GMCB-003-19con).

We are formally requesting "expedited review" of this project as we believe it meets all the criteria for such review and timely approval and completion of this project will benefit our patients and our staff. A formal letter speaking to that request is included in this application packet.

Our application package also includes: the official coversheet; our organizational chart; the project narrative; our answers to the Standards and Criteria; the financial narrative; the required tables; our Verification Under Oath form; the supporting exhibits; and the necessary drawings.

We are very excited to move forward in the process as this project represents a significant advancement in safety and quality of healthcare in our community. I look forward to working with you as we work to have our application ruled complete. Should you have any questions on this application, please contact Jonathan Billings, NMC's Vice President of Community Relations & RiseVT, at jbillings@nmcinc.org or (802) 524-1044.

Sincerely,

Jill Berry Bowen, RN
Chief Executive Officer

CC: Jonathan Billings, NMC Vice President of Community Relations & RiseVT
Anne Cramer, Esq.

NMC
NORTHWESTERN MEDICAL CENTER

Donna Jerry
Senior Health Policy Analyst
Green Mountain Care Board
144 State Street
Montpelier, Vermont 05620

June 27, 2019

Dear Ms. Jerry:

Attached you will find Northwestern Medical Center's (NMC's) Certificate of Need application for the modernization of the NMC Emergency Department (Docket No. GMCB-003-19). **We are requesting expedited review of this application** as we believe it meets the criteria and there is a pressing need for the improvements in safety, privacy, and quality that this modernization will bring, particularly relating to the care of patients suffering from serious mental health concerns or suicidal ideations.

The crucial importance of this project was made even more evident during the 2018 survey of NMC by the Centers for Medicare and Medicaid (CMS) where findings included our Emergency Department's 30-year-old design failing to meet national standards of care. This required immediate interim renovations to avoid CMS decertification, in anticipation of the comprehensive solution provided for within this proposed project. This project provides NMC with two safe holding rooms and two treatment rooms that can be flexed to be ligature-resistant safe holding rooms. These rooms are served by a dedicated nurses' station and bathroom. This area is separate but connected to the main Emergency Department space and can be separately locked and secured. In addition, this project: converts NMC's curtained treatment bays to private rooms for privacy and improved safety; brings NMC to the right number of treatment rooms for our volumes for improved patient flow; creates two permanent flexible airborne isolation rooms (that also serve other patients) for improved safety; brings the registration personnel into the secure perimeter of the Emergency Department for improved safety; and creates improved workflows through a more efficient design.

We believe this project is completely appropriate for expedited review. This project is a dramatic improvement in our services, not an alteration of our services. We do not expect anyone to contest this application. This project aligns with the regulatory requirements of CMS. Given that the Emergency Department has gone approximately 30 years without major interior renovations, our Board has expected this investment and our Days Cash on Hand have been developed with investments such as this in mind. As such, this project will not have a material impact on the cost of healthcare or our overall financial strength. We believe that upon review of the attached application, it will be clear that this project is appropriate for expedited review.

Should you have any questions on this, please contact Jonathan Billings, NMC's Vice President of Community Relations & RiseVT, at jbillings@nmcinc.org or (802) 524-1044. We look forward to hearing from you on this matter and moving forward with this important investment in safety and quality for our community.

Sincerely,

Jill Berry Bowen, RN
Chief Executive Officer

CC: Jonathan Billings, NMC Vice President of Community Relations & RiseVT
Anne Cramer, Esq.

NMC
NORTHWESTERN MEDICAL CENTER

Certificate of Need Application
Emergency Department Modernization project (Docket No. GMCB-003-19con)

Index

Attachments

Exhibits

Division of Health Care Administration
Montpelier, Vermont 05620-3601

Certificate of Need Application Form

Name of Applicant	Northwestern Medical Center
Date of Application	June 27, 2019
Project Title	NMC Emergency Department Modernization
Address Street 1	133 Fairfield Street
Address Street 2	
City/Town	St. Albans
State	Vermont
Zip Code	05478
Telephone number	(802) 524-1044
FAX	(802) 524-1866
E-mail address	jbillings@nmcinc.org

Project Type & Amount (indicate √ project category below)

Non-Hospital Categories

- ☐ Construction, development, purchase, renovation, or other establishment of a health care facility, or any capital expenditure by or on behalf of a health care facility, for which the capital cost exceeds' $1,500;000.
- ☐ A change from one licensing period to the next in the number of licensed beds of a health care facility through addition or conversion, or through relocation from one physical facility or site to another.
- ☐ Offering any home health service.
- ☐ The purchase, lease, or other comparable arrangement of a single piece of diagnostic or therapeutic equipment for which the cost or in the case of a donation, the value, is in excess of $1,000,000.[1]
- ☐ Offering of a health 'care service or technology having an annual operating expense which exceeds $500,000 for either of the next two budgeted fiscal years, if the service or technology was not offered or employed by the health-care facility within the previous three fiscal years.
- ☐ A project which is exempt from the requirements above solely because the cost or value does not exceed financial thresholds; if the cost or value is greater than $750,000 or, in the case of medical equipment, $500,000 and if the commissioner finds that the proposed development:
    1. may be inconsistent with the health resource allocation plan;
    2. has the potential for significantly increasing utilization or rates; or
    3. may substantially change the type, scope or volume of service.

[1] For purposes of this subdivision, the purchase or lease of one or more articles of medical equipment which are necessarily interdependent in the performance of their ordinary functions or which would constitute any health care facility as determined by the commissioner, are considered together in calculating the amount of an expenditure.

Certificate of Need Application Form

Project Type & Amount, continued

Hospital Categories

- ☑ Construction, development, purchase, renovation, or other establishment of a health care facility, or any capital expenditure by or on behalf of a health care facility, for which the capital cost exceeds $3,000,000.
- ☐ The purchase, lease, or other comparable arrangement of a single piece of diagnostic or therapeutic equipment for which the cost, or in the case of a donation, the value, is in excess of $1,000,000.[2]
- ☐ Offering a health care service or technology having an annual operating expense which exceeds $500,000 for either of the next two budgeted fiscal years, if the service or technology was not offered or employed by the hospital within the previous three fiscal years.
- ☐ Change from one licensing period to the next in the number of licensed beds of a health care facility through addition or conversion, or through relocation from one physical facility or site to another.

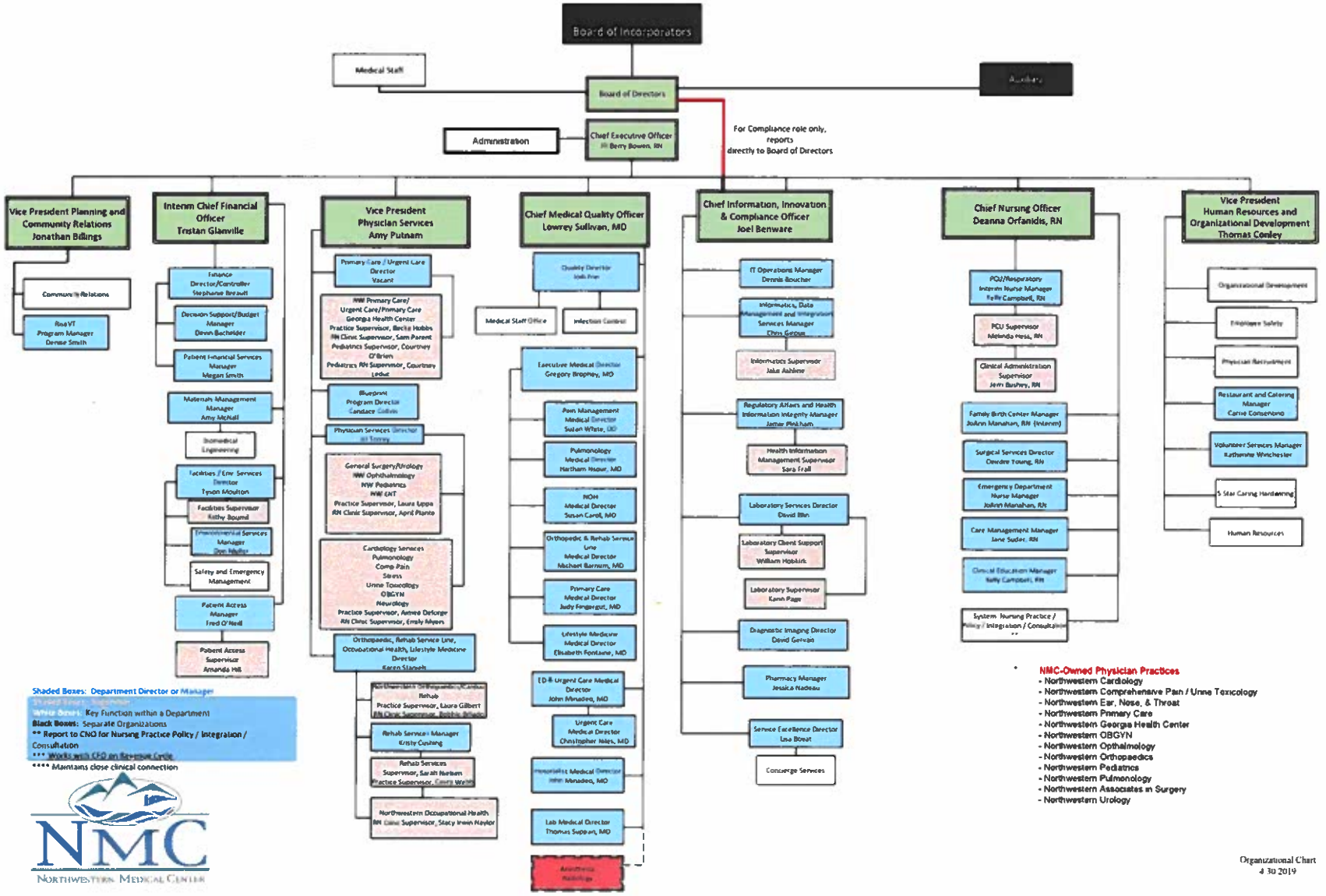
Proposed Capital Expenditure (Total from Table I in application) $ 7,616,214

Proposed Lease Amount (payment times term) $ _____

Please note:

The Chief Executive Officer of the applying entity must sign and attach verification form 'A'.

[2] See Footnote 1.


Board of Incorporators
Medical Staff
Board of Directors
Auxiliary
Administration
Chief Executive Officer
Jill Berry Bowen, RN
For Compliance role only, reports directly to Board of Directors
Vice President Planning and Community Relations Jonathan Billings
Community Relations
RiseVT Program Manager Denise Smith
Interim Chief Financial Officer Tristan Glanville
Finance Director/Controller Stephanie Breault
Decision Support/Budget Manager Dawn Bachelder
Patient Financial Services Manager Megan Smith
Materials Management Manager Amy McNall
Biomedical Engineering
Facilities / Env. Services Director Tyson Moulton
Facilities Supervisor Kathy Bouvrie
Environmental Services Manager Don Hulbig
Safety and Emergency Management
Patient Access Manager Fred O'Neil
Patient Access Supervisor Amanda Hill
Vice President Physician Services Amy Putnam
Primary Care / Urgent Care Director Vacant
NW Primary Care/ Urgent Care/Primary Care Georgia Health Center Practice Supervisor, Becki Hobbs RN Clinic Supervisor, Sam Parent Pediatrics Supervisor, Courtney O'Brien Pediatrics RN Supervisor, Courtney Leduc
Blueprint Program Director Candace Collins
Physician Services Director Ali Torrey
General Surgery/Urology NW Ophthalmology NW Pediatrics NW ENT Practice Supervisor, Laura Lippa RN Clinic Supervisor, April Plante
Cardiology Services Pulmonology Comp Pain Sleep Urine Toxicology OBGYN Neurology Practice Supervisor, Aimee Deforge RN Clinic Supervisor, Emily Myers
Orthopaedic, Rehab Service Line, Occupational Health, Lifestyle Medicine Director Karen Stanek
Rehab Practice Supervisor, Laura Gilbert
Rehab Service Manager Kristy Cushing
Rehab Services Supervisor, Sarah Nortem Practice Supervisor, Emily Wells
Northwestern Occupational Health RN Case Supervisor, Stacy Irwin Naylor
Chief Medical Quality Officer Lowrey Sullivan, MD
Quality Director Josh Prue
Medical Staff Office
Infection Control
Executive Medical Director Gregory Brophey, MD
Pain Management Medical Director Susan White, DO
Pulmonology Medical Director Hartham Hasar, MD
NOH Medical Director Susan Carol, MD
Orthopedic & Rehab Service Line Medical Director Michael Barnum, MD
Primary Care Medical Director Judy Fergerson, MD
Lifestyle Medicine Medical Director Elisabeth Fontaine, MD
ED & Urgent Care Medical Director John Menadeo, MD
Urgent Care Medical Director Christopher Niles, MD
Hospitalist Medical Director John Menadeo, MD
Lab Medical Director Thomas Suppan, MD
Anesthesia Radiology
Chief Information, Innovation & Compliance Officer Joel Benware
IT Operations Manager Dennis Boucher
Informatics, Data Management and Integration Services Manager Chris Gerow
Informatics Supervisor Jake Ashline
Regulatory Affairs and Health Information Integrity Manager Jather Pinkham
Health Information Management Supervisor Sara Frail
Laboratory Services Director David Elin
Laboratory Client Support Supervisor William Hobbins
Laboratory Supervisor Kenn Page
Diagnostic Imaging Director David Gerwan
Pharmacy Manager Jessica Nadeau
Service Excellence Director Lisa Bovat
Concierge Services
Chief Nursing Officer Deanna Orfanidis, RN
PCU/Respiratory Interim Nurse Manager Kelly Campbell, RN
PCU Supervisor Melinda Hess, RN
Clinical Administration Supervisor Jenn Bushey, RN
Family Birth Center Manager JoAnn Manahan, RN (Interim)
Surgical Services Director Deedre Young, RN
Emergency Department Nurse Manager JoAnn Manahan, RN
Care Management Manager Jane Suder, RN
Clinical Education Manager Kelly Campbell, RN
System Nursing Practice / Policy / Integration / Consultation **
Vice President Human Resources and Organizational Development Thomas Conley
Organizational Development
Employee Safety
Physician Recruitment
Restaurant and Catering Manager Carrie Consentino
Volunteer Services Manager Katherine Winchester
5 Star Caring Hardwiring
Human Resources
Shaded Boxes: Department Director or Manager
Shaded Boxes: Supervisor
White Boxes: Key Function within a Department
Black Boxes: Separate Organizations
** Report to CNO for Nursing Practice Policy / Integration / Consultation
*** Works with CFO on Revenue Cycle
**** Maintains close clinical connection
NMC
Northwestern Medical Center
NMC-Owned Physician Practices
- Northwestern Cardiology
- Northwestern Comprehensive Pain / Urine Toxicology
- Northwestern Ear, Nose, & Throat
- Northwestern Primary Care
- Northwestern Georgia Health Center
- Northwestern OBGYN
- Northwestern Opthalmology
- Northwestern Orthopaedics
- Northwestern Pediatrics
- Northwestern Pulmonology
- Northwestern Associates in Surgery
- Northwestern Urology
Organizational Chart
4 30 2019

NMC Emergency Department Modernization – Project Narrative

The Northwestern Medical Center (NMC) Emergency Department is a vital resource dedicated to meeting the emergent medical needs of the 56,000+ people who live in, work in, and visit northwestern Vermont. We are proud of the efforts of our team to deliver exceptional care in a challenging care environment by our dedicated providers, nurses, and staff. We are also proud of the work we have done as an organization and as a community to reduce non-emergent visits to the Emergency Department, facilitated by investments in Primary Care access, Pediatric access, Urgent Care availability, "Right Care, Right Place" messaging and embedding a Nurse Case manager within the department.

However, the physical plant of our Emergency Department limits our ability to provide current expected levels of privacy, security and capacity to our patients. The design of the current Emergency Department dates back nearly 30 years to its original construction in 1990. The department originally had a 9-bed capacity. Approximately 20 years ago, bed capacity increased to 14 with the absorption of the adjacent endoscopy area. The internal patient care space of the Emergency Department has had little more than cosmetic upkeep in those three decades. As such, our busy life-saving service is housed in space that is inadequate, outdated, undersized, non-private, and mis-aligned to address the needs of our current and future patient populations. The Emergency Department lacks safe holding rooms for patients with behavioral health concerns. Registration Staff work outside the secure perimeter of the department. We still have curtained treatment bays so patients and visitors can hear all the details of the care of the neighboring patients. The number of treatment areas does not meet the needs of the volume of patients, particularly with consideration given to the length of stays occurring for patients being held in the Emergency Department for lack of appropriate and staffed inpatient mental health beds in Vermont. A typical Emergency Department patient at NMC has an in-department length of stay of approximately 164 minutes. It is not unusual for a patient awaiting placement for mental health concerns to have a have a length of stay of 48 to 72 hours – the equivalent "bed time" of 17.5 to 26.3 typical Emergency Department visits. As such, the renovations to address these concerns have been a component of NMC's Master Facility Plan and the long-range capital investment plan (which has been shared with the Green Mountain Care Board – GMCB - through the budget process).

The dramatic need to address this pressing priority was made even more evident during the 2018 survey of NMC by the Centers for Medicare and Medicaid (CMS). That process was triggered by a complaint relating to our Emergency Department and our use of law enforcement to help keep patients and staff safe in instances of severe aggression, mental health concerns or suicidal ideations. The situation was serious enough that NMC found itself on the cusp of a decertification process with CMS. This process literally threatened the ongoing viability of a hospital that has served its community since 1883 and which has been named one of the nation's Top 100 Rural and Community Hospitals (by the Chartis Center for Rural Health) on multiple

occasions. CMS reinforced what our patients, providers, nurses, staff, management, leadership, and Board all agree on – the NMC Emergency Department must be modernized. As part of our response to CMS to maintain the certification of the hospital, immediate interim changes were made to the Emergency Department including a temporary safe room. NMC's intentions to conduct a comprehensive renovation of the Emergency Department were shared with the CMS onsite survey team as well as their leadership at both the State and National level.

Given this, NMC is moving forward with the renovation and modernization of the NMC Emergency Department to meet the needs of our community and provide appropriate safety and privacy for our patients and staff so we can deliver on our mission of providing exceptional care. This application seeks approval for a Certificate of Need to undertake this crucial project.

Strategic Context:

The NMC Strategic Plan for Fiscal Years (FY) 2017-2019 was developed by our Board of Directors with the active involvement of our medical staff and Leadership Team and with significant input from our community: residents, local leaders, and partners. It is based upon comprehensive quantitative and qualitative data-driven environmental assessments including: NMC's mission, vision, and values; our Community Health Needs Assessment (which identifies Mental Health, Substance Abuse, Suicide, and Domestic/Sexual Assault as four of the top seven health need priorities for our community); population projections and demographic shifts; health care trends nationally and health care reform efforts within Vermont; and operational and financial statistics. Following a complete gap analysis, strategies for prudent and necessary future positioning were developed and formalized into our Strategic Plan.

This plan, approved by the Board of Directors on October 5, 2016, calls upon NMC to establish an updated Master Campus Plan with the intention of investing in the patient care environments necessary to meet the needs of our community and provide an appropriate work environment for our providers and staff. This next level of campus planning was initiated during the implementation of NMC's prior Master Facility Plan, which focused on the expansion of access to Primary Care, Urgent Care, and Orthopaedics at the front of campus; the establishment of flexible Medical Clinic space to provide efficient access to needed specialty care; and the conversion of our inpatient Medical/Surgical and Intensive Care units to one unified Progressive Care Unit featuring all private rooms. As the updated Master Campus Plan was established through an intentional, collaborative, and deliberative process, the modernization and renovation of the Emergency Department was identified as a top priority.

As we looked strategically at our future, the provision of emergency services continued to be an essential and fundamental component of NMC's care for our community. The NMC Emergency Department is located in St. Albans, the population center of Franklin County. Portions of our population in the northwest and northeast corners of our service area reside more than a half hour drive from our location and more than an hour's drive (in good weather) from

the University of Vermont Medical Center Emergency Department in Burlington. As such, the NMC Emergency Department is strategically located to provide emergent care to the full population of our service area.

NMC has invested in expanding Primary Care, preserving Pediatrics, and providing Urgent Care to meet community need for non-emergent care and uses "Right Care, Right Place" messaging to help patients seek care in the proper setting. As such, the non-emergent use of the NMC Emergency Department has been reduced. Still, appropriate use of the NMC Emergency Department is strong. The department has earned a reputation as a respected and trusted resource within our community and plays a vital role in the overall health of northwestern Vermont.

A report from the Department of Labor in 2018 shows that Franklin County, which comprises the bulk of NMC's primary service area, is one of the few Vermont communities experiencing population growth. Projections in this report show a growth rate of 2.4% in Franklin County, compared to a projected 0.2% reduction for Vermont's total population. At the same time, Franklin County aligns with the State trends of an aging population. A 2013 report for the State of Vermont's Population Projection Review Committee shows that the number of residents over the age of 60 in Franklin County was projected to more than double between 2010 and 2030. Data from the Centers for Disease Control and Prevention (CDC) shows that rates of emergency department visits steadily increase as the population progresses from ages 65-74, 75-84, and 85 and over. As such, even with efforts to expand access and reduce non-emergent use of the NMC Emergency Department, our demographic trends indicate it is appropriate to strategically retain emergency care as a core service and anticipate continuation of current Emergency Department volume levels and trends.

NMC's FY2019 Annual Operating Plan flows from the FY2017-19 Strategic Plan and lists the submission of this application for a Certificate of Need (CON) for the Emergency Department project as one of the strategic initiatives necessary to address NMC's priority relating to mental health and substance abuse. Our Emergency Department providers and staff, our Facilities team, and others have invested months of work with the E4H (Vermont Based) Architects to develop and refine a prudent design in consideration of care, safety, privacy, capacities, flexibility, and efficiency. This process involved multiple design cycles as all involved, including the Planning Committee of the NMC Board, pressed to ensure all aspects had been carefully considered and that we were advancing the right project for our community – both for now and for our future. The NMC Board unanimously approved the project and submission of the CON June 5, 2019.

Issues of Operational Concern Related to this Project:

Four major operational concerns are driving NMC's need to modernize our Emergency Department and improve upon the inadequacies of the environment provided by the existing 30-year old design and space:

- **Patient and Staff Safety Relating to Patients with Mental Health Concerns:** NMC, like nearly all Vermont hospitals, continues to experience tremendous challenges in our Emergency Department from having to hold patients who are suicidal or who have other serious mental health issues. We do not have the proper physical environment to adequately care for patients with these needs. In the Fall of 2018, that contributed to NMC being deemed out of compliance with CMS (Centers for Medicare & Medicaid) standards and ultimately put NMC on a path toward possible decertification. Our Emergency Department design and physical environment were of significant concern to the surveyors. At the time, we did not have true Safe Holding Rooms. As part of our aggressive plan of correction, NMC made immediate improvements within a single existing patient care space to try and create an acceptable temporary solution. Subsequently a single secure holding room was constructed within the existing Emergency Department footprint. While this temporary solution creates a better environment to manage patients with serious mental health issues, it does not meet the full need. The surveyors who considered NMC's participation status in Medicare and Medicaid understood NMC's commitment to this Certificate of Need project which we are proposing in order to more fully meet the standards for these challenging patients and to better ensure the safety of our staff while providing their care.

- **Treatment Area Capacity:** The NMC Emergency Department treated 25,227 patients in the previous 12 months in the existing 14 treatment areas which translates to 1,801 visits per space. That puts NMC over the range of the national threshold of 1,400 to 1,500 as specified within Strauss and Mayer's "Emergency Department Management" publication. With the aging population, it is also notable that the patient-acuity levels are rising, resulting in longer evaluations and a subsequent reduction in bed turnover. As part of our due diligence during design, NMC gathered patient volume and Emergency Department information from four Vermont hospitals with similar communities: Rutland Regional Medical Center, Southwestern Vermont Medical Center, Brattleboro Memorial Hospital, and North Country Hospital. The following chart illustrates that NMC's current Emergency Department visits per bed is not only above the national threshold, but more meaningfully, well above the levels of comparable Vermont hospitals.

	NMC Current	NMC Planned	Rutland Regional	Southwest	Brattleboro	North Country
Patient Volume	25,000	25,000	36,000	24,400	13,000	16,000
ED Beds: (Medical)	13	16	26	16	10	7
ED Beds: (Safe & Convertible)	1	4	7	3	2	3
Total ED Beds:	14	20	33	19	12	10
Visits Per Bed:	**1,786**	**1,250**	1,091	1,284	1,083	1,600

This concerning status comes after intentional and impactful effort to reduce non-emergent use of the NMC Emergency Department. We have purposely reduced avoidable visits and collaborated with Northwestern Counseling & Support Services in caring for mental health patients in the outpatient setting, adding to the reduction in Emergency Department visits. Our Emergency Department volume in 2012 was at 27,998 in those same 14 spaces, a rate of 1,999 patients per space. We have since invested in significant expansion of Primary Care, the preservation of Pediatrics, and the provision of Urgent Care, which has leveraged meaningful reduction in the non-emergency use of the NMC Emergency Department and brought our annual volumes to approximately 25,000. The high rates of bed utilization in the Emergency Department puts significant strain on patient throughput which challenges our mission of providing exceptional care, compromises safety, forces inefficiencies, and negatively impacts patient, provider, and staff satisfaction.

- **Additional Safety Concerns:** The NMC Emergency Department lacks at least two modern design fundamentals relating to staff and patient safety. The registration area is outside the secure perimeter of the patient care area, putting staff at risk. In the event of the need to "lock down" the Emergency Department due to an active shooter or other serious threat, the Emergency Department doors seal for protection and the registration staff are currently left outside the Emergency Department's protective boundaries in an open desk area directly next to the public entrance. This is not how modern Emergency Departments are designed and puts our staff at a higher level of risk than they would be at in a more modern and safety-oriented design. The NMC Emergency Department also lacks dedicated, private airborne infectious isolation rooms, putting staff and patients at greater risk for possible transmission. This type of specialized care environment is necessary for the safe treatment of patients with diseases such as Tuberculosis, Measles,

Chicken Pox or the concern of rarer conditions such as SARS or Ebola. Temporary portable measures to approximate a true airborne infectious isolation room within the Emergency Department have been used, but even with the best of intentions, these approaches carry a level of set-up delay and operational risk that can be avoided or minimized through properly designed, permanently constructed, dedicated spaces.

- **Patient Privacy:** The NMC Emergency Department also lacks basic privacy measures which have come to be expected by the public. Our core treatment areas are separated only by curtains, allowing patients and visitors to overhear clinical and personal conversations in the neighboring bays, which is simply no longer acceptable in healthcare as standard practice. The lack of true private treatment rooms risks infringement upon important candor in medical discussions and inadvertent impairment of privacy. It also causes disruptions in patient and visitor attentiveness during instruction; negatively impacts restfulness during patients' stays in the Emergency Department; and creates safety concerns as physical disruptions can easily move from one curtained treatment bay to another.

NMC's Strategic Solution:

Objectives and Components of this Project:

NMC's plan for the modernization of the Emergency Department has been carefully focused on addressing the pressing concerns of Safe Holding Rooms, capacity, safety, and privacy while providing a necessary level of flexibility and proper efficiency for this busy important core service.

The overall objectives of the Emergency Department renovations are the:

- Conversion of the main Emergency Department treatment area from curtained treatment bays to private treatment rooms to enhance patient care and experience to address the lack of privacy which is a significant concern that impacts patient communication, care, education, and comfort;

- Right-sizing of the number of patient treatment areas from 14 traditional treatment areas to 16 traditional treatment areas (and a total of 20 treatment rooms overall) to provide proper care and efficient through-put for patients with emergent needs in alignment with community volumes with a design that allows for efficient adaptation should volumes change differently than projected in the future. In the past year, approximately 5% (or over 1,200) patients received emergent care in hallway beds (please see the chart above on page 5 and the discussion of room counts below on page 7);

- Creation of a flexible layout with 2 dedicated private Safe Holding Rooms and 2 convertible private Safe Holding Rooms (not included in the 16 traditional treatment areas referenced above), complete with a dedicated ligature-free shower, bathroom, and nurses' station, to provide regulatory-compliant safe and appropriate treatment space for patients who are suicidal or dealing with severe mental health issues. This will bring us into true compliance with CMS expectations regarding the environment of care for patients with these needs. It will also provide us with the flexibility we need for improved surge capacity given the allowable use of Safe Holding Rooms for other types of patients when those rooms are available during times of a surge in patient volumes;

- Creation of 2 private Airborne Infectious Isolation Rooms (included in the 16 traditional treatment rooms referenced above) for the proper and safe care of patients whose conditions necessitate airborne isolation;

- Integration of patient registration and the Security Station into the secure perimeter of the Emergency Department, enhancing the safety of staff; and

- Implementation of a modern design that maximizes staff and patient safety; staff visibility of patient care areas; storage capacities and proximity; energy efficiency; heating, ventilation, and air conditioning (HVAC) improvements; and workflow efficiency.

Room Counts and Patient Volumes:

The following table presents the current and future counts of the various treatment areas within the NMC Emergency Department:

Type of Treatment Area	Current	Planned
Trauma Room Beds (unchanged – now reserved for trauma)	2	1
Cardiac Room Beds (unchanged – now reserved for cardiac)	1	1
Traditional Treatment Beds (becoming private rooms)	10	12
Airborne Infectious Isolation Rooms (will be used for others)	0	2
Dedicated Safe Holding Rooms	1	2
Convertible Safe Holding Rooms (can be used for others)	0	2

This improvement in room design and room use will provide NMC with greatly improved flexibility to handle moderate and significant surges in patient volumes while better preserving our most advanced treatment rooms (the trauma room and the cardiac room) for the specific life-threatening emergency they are designed to address. Similarly, these room counts

and designations ensure we have the capacity to dedicate the full Safe Holding Rooms to their purpose and flex with the convertible Safe Holding Rooms to meet the variations in volume of patients with severe mental health concerns or suicidal ideations.

The comparable data in the table above (see page 5) shows that NMC's planned project brings NMC's Emergency Department visits per bed from the concerning level of 1,786 per bed to an appropriate level of 1,250 per bed. This moves NMC from being over the national threshold and an outlier among the comparative hospitals to a rate that is appropriately in line with the ranges.

Project Approach to Renovations:

The NMC Emergency Department is located on the west side of the main hospital facility at 133 Fairfield Street in St. Albans, Vermont. This project necessitates renovation of significant portions of the existing Emergency Department as well as a smaller increase in existing footprint on the northwest side of the existing Emergency Department. (Please see Exhibit 7, the attached floor plan diagram.) Renovating a busy emergency department is by nature a challenging initiative given the need to maintain a vital service for the community while making best use of re-useable existing infrastructure and efficiently working through the realities and disruption of construction.

The modernization of the NMC Emergency Department has been carefully planned with the E4H Architects to optimize the existing square footage through redesign and renovation, while minimizing the need for new building footprint. This project will renovate 9,267 square feet of the existing Emergency Department footprint (essentially all of the department, except the parking portion of the attached ambulance bays). It will relocate an existing mechanical room and add 2,392 square feet of new building footprint. The total square footage impacted by renovation and construction is 11,659 square feet. This is in line with the estimation from the Huddy Healthcare Solutions calculator that an Emergency Department with our demographics would likely be in the 11,000 to 12,000 square foot range.

The project design team carefully considered options of renovating 'in place' while emergency services continued as well as temporarily relocating emergency services to allow for full access to the Emergency Department for comprehensive renovations. There proved to be significant negative financial impact on general conditions costs from lengthening the project through multiple phasing levels to allow for renovating 'in place.' A phased renovate in place strategy would also result in a problematic reduction in overall capacity in the Emergency Department during construction. Fortunately, NMC's former Intensive Care Unit and Step-Down Unit (which was replaced by the Progressive Care Unit in 2018) is in close proximity to the Emergency Department and available to be converted for use as a temporary Emergency Department during the renovation.

Equipment to be Purchased and/or Replaced:

At this point in our design process, we are continuing to work with E4H Architects and the users of the interim space and the permanent space to determine what existing equipment and furnishings are available to be reused and what will need to be purchased. This project does not include purchasing any major diagnostic imaging equipment. A detailed description of the equipment to be purchased or replaced will become available later in our Design Development process.

Project Finances:

NMC's plans for the renovation of our Emergency Department have gone through multiple design cycles to properly balance overall scope and functionality with cost and impact. The proposed project aligns with both NMC's mission to provide exceptional care for our community and our fundamental need to maintain a sustainable organization financially to allow us to deliver on that mission. This balance of improvement and cost was reviewed and approved by Quorum Health Resources, the national hospital management company with whom NMC has had a long-standing contractual relationship, prior to the submission of the recommendation of the project to the NMC Board of Directors.

Project cost projections are based on schematic level design and were developed in consultation with a Construction Manager from E.F. Wall and Associates. Total project costs are estimated at $7,616,214, as follows:

Cost Projections	
Construction	$4,893,942
Temporary Relocation (former ICU)	250,000
Construction Contingency (26%)	1,354,465
Total Construction Cost:	**6,498,407**
Design & Development	489,400
Furnishings & Other	483,846
Contingency (15%)	144,561
Total Soft Cost:	**1,117,807**
Total Cost:	**$7,616,214**

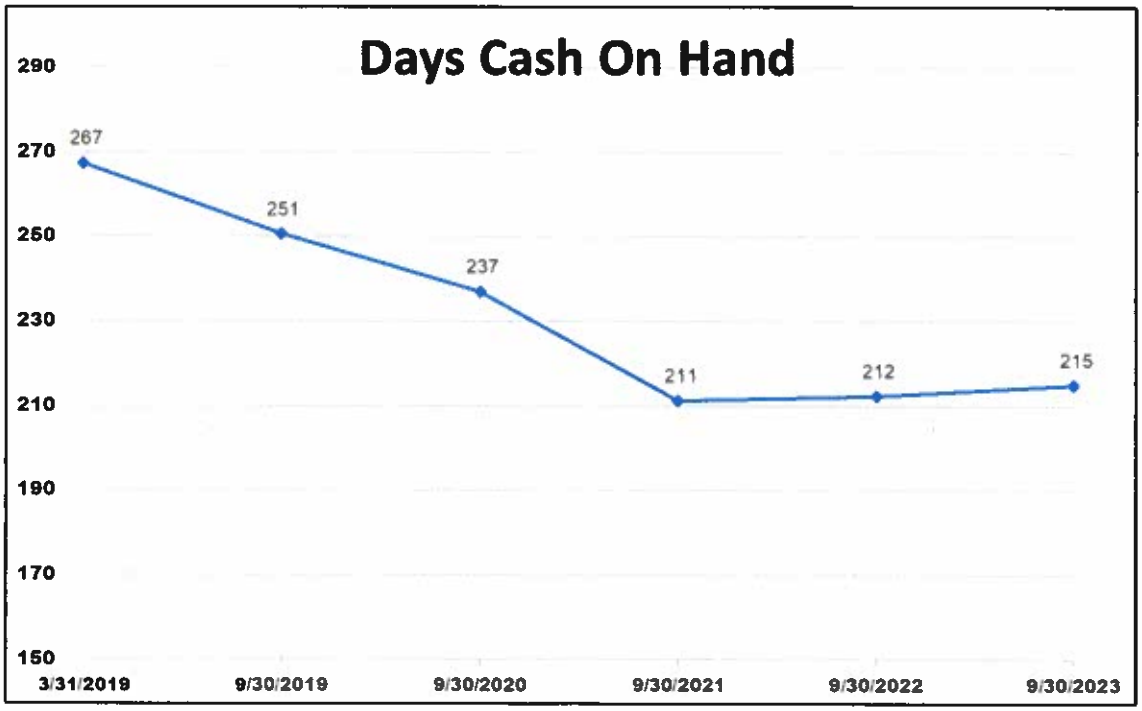
These project costs fit within NMC's 5-Year Strategic Financial Plan as demonstrated in the attached schedules. (Please see the attached Financial Tables.) It has been included in the

capital projections which we have shared with the GMCB during the State's budget process for hospitals.

We anticipate that the cost of this project will impact NMC's fiscal years as follows:

FY 2018	$ 99,856
FY 2019	301,743
FY 2020	3,962,701
FY 2021	3,251,914
	$7,616,214

NMC's Board of Directors has long anticipated the strategic need for investment in our facility through projects including the Emergency Department renovation to maintain our ability to care for our community. As a result, NMC is in an appropriate long-term financial position to complete this project. We plan to fund the Emergency Department modernization project primarily through cash reserves, with the anticipation of fundraising contributing $500,000 toward the project. The use of cash reserves in this project represents approximately 23 Days Cash on Hand for NMC. As illustrated by the following graph, NMC will remain at an appropriate Days Cash on Hand level following the use of these funds for their intended purpose.



As NMC has discussed with the GMCB, NMC's previous trend of positive operating margins has changed since the budget correction of 2016. NMC has lost money from operations in FY 2017 and FY 2018 and is on track to do so in FY 2019. NMC has put an operational improvement plan in place to close the gap in FY 2019 and FY 2020 through a reduction in operating expenses. This will require an alignment of expenses with revenues through continued emphasis on efficiency, alignment of staffing with volumes, and strategic consideration of how

to transform NMC from the fee-for-service approach to sustainability within Vermont's incoming population-health-based capitated system. As we do so, it will be of utmost importance that NMC achieve our projected operating margins in coming years to maintain financial viability in the short- and long-term.

Anticipated Impact on Health Care Costs, Access and Quality:

This project aligns with the aims of providing appropriate access to high quality care without an undue impact on healthcare costs. By right-sizing and optimizing the NMC Emergency Department, this critical community resource will be better positioned to efficiently provide the necessary life-saving and emergent care our growing community needs well into the future. The improvements to quality are desperately needed and deeply rooted in patient safety. We, like other Vermont Emergency Departments, continue to see an increasing number of patients with higher acuity mental health needs coming to our Emergency Department for care. This project provides for quality improvements including ligature-resistant treatment areas (specific furniture, hard ceilings, special sprinkler heads, special anti-loopable hardware, special bathroom fixtures, durable finishes, etc.) and direct sightlines between the nurses' station and the highest risk patients. Improving our treatment areas to better meet the serious needs of patients with these conditions will be a dramatic improvement in quality. Similarly, given the modern prevalence of global travel, private rooms and airborne isolation rooms also provide a direct improvement in quality. This project has been an established part of NMC's long-term financial plan and our long-term capital plan which have been discussed with the GMCB. It is a project aligned with NMC's established and successful efforts of reducing costly non-emergent use of the Emergency Department and represents value to the overall system by providing the appropriate, safe, and high-quality environment patients with emergent conditions in our community need and deserve.

Project Timeline:

Given that this project brings significant improvement in patient and staff safety and the attention drawn to the need for this as part of the CMS decertification process, NMC has strong hopes for an expedited or expeditious review of this Certificate of Need application. With timely approval to proceed, NMC anticipates completion of the design and preparation work to allow for a start of construction in the Spring of 2020, with completion in the Spring of 2021.

Summary:

The NMC Emergency Department is a vital resource for the 56,000+ people of northwestern Vermont. Over the past 30 years, its design has grown inadequate for the provision

of exceptional care especially for patients with severe mental health concerns and suicidal ideations; capacity per treatment bed; privacy for patients; and safety for both patients and staff. The critical need for this project was dramatically illuminated during NMC's process of potential decertification from Medicare and Medicaid by CMS in 2018. NMC's providers, nurses, staff, management, and leadership have worked through a comprehensive process to identify the proper scope and appropriate design for a modernized Emergency Department to meet the current and foreseeable needs of our community with an appropriate level of flexibility to adapt in changing times. This scope and design have been prudently balanced with the costs of the project and the financial means of the organization. The resulting project has been endorsed by the clinical design team; vetted and approved by Quorum Health Resources (the national hospital management firm with which NMC has had a long-standing contractual relationship); vetted and recommended by the NMC Board's Planning Committee and Finance Committee; and formally approved by the NMC Board of Directors.

We believe that a review of this project and its relation to the standards and criteria set forth within Vermont's Certificate of Need process will show that it is in keeping with community need; consistent with quality care in Vermont; aligned with the intent of Vermont's regulatory efforts; and is a necessary and important investment to ensure access to exceptional emergent medical care for the people who live in, work in, and visit northwestern Vermont.

Statutory Criteria & Health Resource Allocation Plan (HRAP) Standards:

§ 9437. Criteria:

1. **Proposed project aligns with statewide health care reform goals and principles because the project:**
    - **A. takes into consideration health care payment and delivery system reform initiatives;**
    - **B. addresses current and future community needs in a manner that balances statewide needs (if applicable); and**
    - **C. is consistent with appropriate allocation of health care resources, including appropriate utilization of services, as identified in the HRAP pursuant to section 9405 of this title.**

NMC is the community hospital caring for the 56,000+ people of northwestern Vermont and our Emergency Department is a crucial, life-saving resource for our community. Portions of our population in the northeast and northwest corners of our service area live 30 minutes or more from our Emergency Department and an hour or more from the Emergency Department at the University of Vermont Medical Center. Given northwestern Vermont's geography and the locations of neighboring hospitals, we do not compete for emergency patients with other hospitals nor could our community be adequately served by the emergency departments at other Vermont hospitals. As such, the NMC Emergency Department is a vital component of Vermont's healthcare system.

Within healthcare payment and delivery system reform, the provision of the right care in the right setting at the right time is a key component to properly containing healthcare costs and ensuring appropriate utilization of services. NMC has made a concerted and recognized effort to reduce our community's non-emergent use of our Emergency Department. We have invested in expanding Primary Care access by employing physicians who may have otherwise left the community; recruiting additional providers; facilitating the Federally Qualified Health Center's relocation to our campus; and subsidizing the Hospitalist program which contributes to the quality of life and therefore retention of Primary Care providers. We stepped in when the large local community-based Pediatric practice was near dissolution and invested in the employment of their practice to preserve and expand access to Pediatric Care. We operate two busy Urgent Care sites in Franklin County – at a financial loss to the organization – in order to provide additional alternative care settings. We have collaborated with Northwestern Counseling and Support Services on strategies to help reduce avoidable mental health visits to the Emergency Department and even embedded a crisis worker within the department who works collaboratively with our existing RN Case Manager as well as our SBIRT (Screening, Brief Intervention, and Referral to Treatment) personnel for substance abuse. We have also invested in part-time medical specialty clinics, such as Cardiology, with the belief that one benefit of improved access

to preventive specialty care may be addressing conditions before they worsen and become emergent. We have also invested in "Right Care, Right Place" messaging to help educate our community on what conditions should be brought to the Emergency Department and what can be better addressed at a lower cost through Primary Care, Pediatrics, Urgent Care, or another setting. As a result, we have seen a meaningful reduction in the avoidable visits to the NMC Emergency Department which is reflected within an overall reduction in visits of more than 10% from FY 2012 to FY 2018:

Fiscal Year:	**NMC Emergency Department Visits:**
FY 2012	27,998
FY 2013	26,995
FY 2014	26,019
FY 2015	25,937
FY 2016	27,245
FY 2017	24,772
FY 2018	24,536

The NMC Emergency Department has earned a very strong reputation for quality service in our community and is a trusted resource for individuals and families across the region. It provides a level of medical expertise and emergent resources which is unduplicated within our community. It also serves as a 'safety net' when other options are not available or not accessible. Its role is crucial within the current and future healthcare system in Vermont. NMC's work to help facilitate appropriate use of the Emergency Department pre-dates the start of Vermont's transformation from fee-for-service medicine to a capitated population health based system. We willingly sacrificed revenue from avoidable Emergency Department visits as we worked to shift that care to the more appropriate clinical settings including Primary Care, Pediatrics, and Urgent Care. With the transition toward capitation, this work continues as an imperative as proper utilization of services is fundamental to accountable care. This project is absolutely aligned with NMC's continued work within the transformation of Vermont's healthcare system. We are not seeking additional volumes or additional revenues from this investment. We are seeking a safe, efficient, flexible environment in which our providers, nurses, and staff can provide exceptional care for those patients in our region in need of emergent medical care.

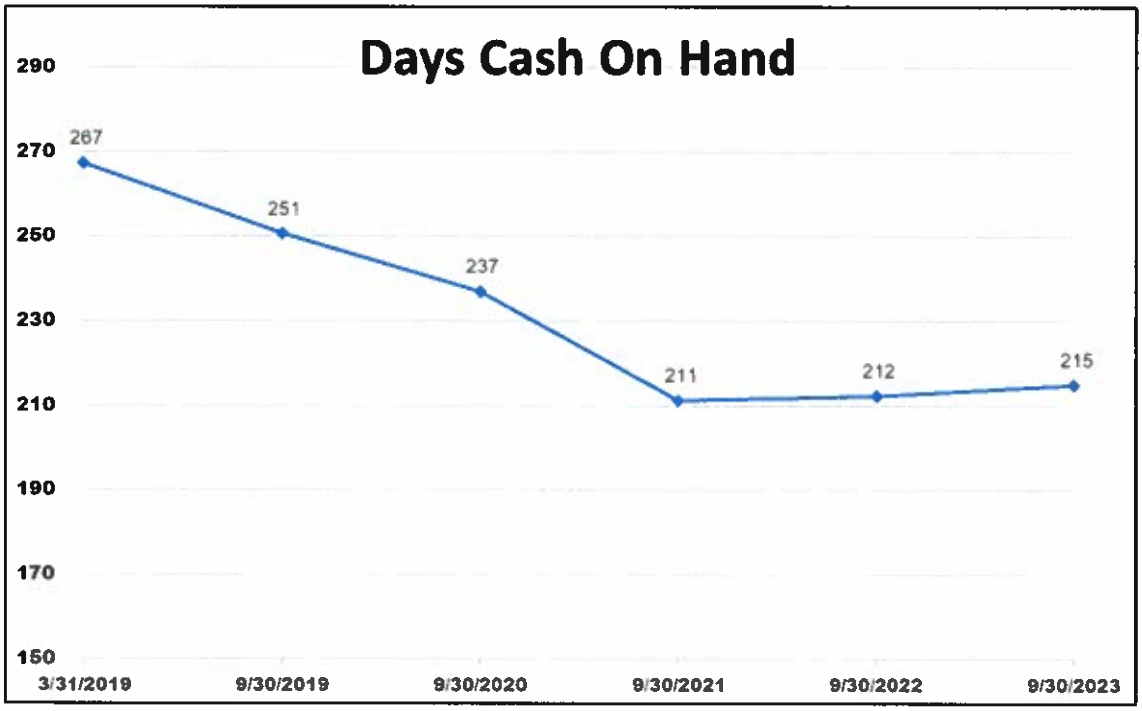
2. The cost of project is reasonable because each of the following conditions is met:

A. The applicant's financial condition will sustain any financial burden likely to result from completion of the project;

As part of our annual budgeting process, NMC maintains an updated 5-year financial model based on the most current and relevant assumptions available. The assumptions used for this modeling are reviewed and approved by Quorum Health Resources, the national hospital management and consulting firm with whom NMC has a long-standing management contract. This project is a component of NMC's current 5-year financial plan.

As shared above, NMC's Board of Directors has long anticipated the strategic need for investment in our facility through projects including the Emergency Department renovation to

maintain our ability to care for our community. As a result, NMC is in an appropriate long-term financial position to complete this project. We plan to fund the Emergency Department primarily through cash reserves, with the anticipation of fundraising contributing $500,000 toward the project. The use of cash reserves in this project represents approximately 23 Days Cash on Hand for NMC. As illustrated by the following graph, NMC will remain at an appropriate Days Cash on Hand level following the use of these funds for their intended purpose.



As shared above, and as NMC has discussed with the GMCB, NMC's previous trend of positive operating margins has changed since the budget correction of 2016. NMC has lost money from operations in FY 2017 and FY 2018 and is on track to do so in FY 2019. NMC has put an operational improvement plan in place to close the gap in FY 2019 and FY 2020 through a reduction in operating expenses. This will require an alignment of expenses with revenues through continued emphasis on efficiency, alignment of staffing with volumes, and strategic consideration of how to transform NMC from the fee-for-service approach to sustainability within Vermont's incoming population-health-based capitated system. As we do so, it will be of utmost importance that NMC achieve our projected operating margins in coming years to maintain financial viability in the short- and long-term.

B. The project will not result in an undue increase in the costs of medical care or an undue impact on the affordability of medical care for consumers. In making a finding, the Board shall consider and weigh relevant factors, including:

(i) The financial implications of the project on hospitals and other clinical settings, including the impact on their services, expenditures and charges; and

(ii) Whether the impact on services, expenditures, and charges is outweighed by the benefit of the project to the public;

This project will be funded primarily through existing Days Cash on Hand with a relatively small fundraising component anticipated, so it will not have an undue increase in the cost of medical care. The need for this project has been anticipated by the NMC Board of Directors and the organization has prudently positioned its reserves to address this investment in a proper care environment without taking on the expense of additional debt. The strength of NMC's balance sheet has been discussed in various meetings with the GMCB and NMC has explained that it is positioned appropriately for necessary projects such as this Emergency Department modernization.

As NMC does not compete with other hospitals for emergency department visits and as NMC owns both existing Urgent Care facilities in the region, this project does not have financial implications or adverse impacts on other hospitals or clinical settings.

This project does come at a time when NMC is losing money from operations. As such, we are placing all expenses under significant scrutiny and cost reductions are being implemented to align expenses with revenues. Contracts are being renegotiated. Supplies are being examined. Leases are being consolidated. Staffing is being aligned with volumes. Open positions are being carefully reviewed with many going unfilled. Employees' suggestions for efficiencies are being implemented. With a full understanding of those challenges, the NMC Board, Medical Leaders, and Leadership Team have approved the continued pursuit of the modernization of the Emergency Department. The potential decertification process with CMS in 2018 made it clear that for the care of our patients, the safety of our staff, the future of the hospital, and the overall public good, we must invest in a safer, flexible, modern Emergency Department.

C. Less expensive alternatives do not exist, would be unsatisfactory, or are not feasible or appropriate.

Ten years ago, a consulting out-of-state architect proposed a draft Master Campus Plan to NMC that closed the existing Emergency Department and relocated it to expanded new space at the front of the hospital campus so NMC would benefit from greater Emergency Department volumes and revenues. That proposal arrived the same week that NMC's new Chief Executive Officer (and current CEO) Jill Berry Bowen, RN, arrived. Ms. Bowen reviewed the draft plan with the NMC Board, Medical Staff, and Leadership and asked that it be put on hold. With this stay granted, she then led the organization on a strategic planning process which dramatically changed the considerations relating to the Emergency Department. Emphasis shifted from establishing the Emergency Department as the front door of the hospital and growing its volumes beyond their levels around 30,000 visits at the time to maintaining the Emergency Department in place as a key resource and focusing on reducing avoidable visits through care management, communications, and a redirection of the investment into improved Primary Care access and

other strategies. While an attractive strategy in other states with differing values and differing healthcare systems, that initial alternative from a decade ago would have been significantly more expensive to NMC and Vermont's overall system than the renovation addressed in this Certificate of Need application and would not have been in keeping with the direction of healthcare reform that Vermont has subsequently pursued.

Throughout the many discussions of the future of the Emergency Department since that time, and throughout the many design cycles for the Emergency Department modernization proposed in this Certificate of Need application, a wide variety of design considerations and construction approaches were explored in ongoing efforts to arrive at the best balance of investment and improvement. Consideration was given to permanent relocation of the Emergency Department, but our existing space still has value and functionality for ongoing service with the right renovation. Consideration was given to how much of the existing footprint could be repurposed while still achieving the necessary improvements. Early on, consideration was given to a non-CON level project focused on basic improvements without the investment in Safe Holding Rooms, as the pressing need for that level of care had not yet evolved to a high priority within our community – and as that need evolved, that option was no longer appropriate. Consideration was given to renovating 'in place' but the temporary use of the vacant Intensive Care Unit allowed for a more efficient and shorter renovation of the Emergency Department that proved less disruptive, more efficient, and more cost effective. Consideration was given to the best way to address the existing mechanical room which complicates the repurposing of space. Options were explored that included leaving the room in place, consolidating the room, relocating all or portions of the room to the roof, or relocating the room horizontally. Initially, relocating the room to the roof was attractive, but because of the presence of the water service (which cannot be relocated to the roof) and the medical gas manifold (which cannot be relocated to the roof without the installation of an elevator) within the mechanical room, it proved necessary to pursue a horizontal relocation of the mechanical room.

NMC did carefully and formally consider a compromised scope alternative that was estimated at approximately $4 million. This approach would have created 2 Safe Holding rooms, but not in an area that could be separated from the rest of the Emergency Department. This lacked the flexibility of expanding to 4 beds through convertible Safe Holding Rooms. Maintaining those rooms in the general Emergency Department treatment area would have led to the continued disruption of care and reduced safety for patients with severe mental health concerns or suicidal ideations given the reduced number of barriers to elopement. This approach would not have addressed the safety concerns for the registration staff. As it did not include the reclamation of mechanical space or the addition of square footage, this lesser plan did not provide adequate space for clinical personnel (including embedded Care Management and the SBIRT - Screening, Brief Intervention, and Referral to Treatment – personnel) or equipment storage as well as providing unsatisfactory configurations of clean supply, medication, and nourishment areas. This design also created unsatisfactorily inefficient workflow for staff and patient movement to Diagnostic Imaging and inpatient units. This version of the project was brought to the Planning Committee of the NMC Board and discussed in detail. It was found to

not address enough of the fundamental concerns to be worth the still-significant investment, with the realization that whatever renovation is undertaken within the Emergency Department will likely serve our community and our hospital for the next 20 to 30 years. The Board Planning Committee asked the Design Team to rework the plan to create a separate, lockable, flexible approach to the Safe Holding Rooms in the best interests of all of our patients and our staff and to ensure that we did not inappropriately cut other corners for short-term savings which undermined the safety or effectiveness of the new space in the long-term.

Given the time and expertise and clinical input invested in the consideration and design and refinement of the proposed modernization of the Emergency Department, we believe we have done the proper due diligence regarding less expensive options which would still be satisfactory, feasible, and appropriate.

D. If applicable, the applicant has incorporated appropriate energy efficiency measures.

The project will be designed to meet or exceed the energy efficiency requirements outlined in the Vermont Commercial Energy Standards, 2001 edition. We are incorporating energy efficient strategies including LED (Light Emitting Diode) lighting; DDC (Direct Digital Controls) upgrades for the HVAC (Heating, Ventilation, and Air Conditioning) systems; and VAV (Variable Air Volume) technology with occupancy controls. We are consulting with Efficiency Vermont in the identification, adoption, and refinement of appropriate energy efficiency strategies for our project. (Please see Exhibit 6, the Efficiency Vermont commitment letter).

3. There is an identifiable, existing, or reasonably anticipated need for the proposed project that is appropriate for the applicant to provide.

NMC is the community hospital caring for the 56,000+ people of northwestern Vermont and our Emergency Department is a crucial, life-saving resource for our community. Portions of our population in the northeast and northwest corners of our service area live 30 minutes or more from our Emergency Department and an hour or more from the Emergency Department at the University of Vermont Medical Center. Given northwestern Vermont's geography and the locations of neighboring hospitals, we do not compete for emergency patients with other hospitals nor could our community be adequately served by the emergency departments at other Vermont hospitals. As such, the NMC Emergency Department is a vital component of Vermont's healthcare system.

The physical plant of NMC's Emergency Department provides inadequate safety for the care of many of our most challenging patients. The design of the current Emergency Department dates back nearly 30 years to its original construction in 1990. The internal patient care space of the Emergency Department has had little more than cosmetic upkeep in those three decades. As such, our busy life-saving service is housed in space that is inadequate, outdated, undersized, non-private, and mis-aligned to address the needs of our current and future patient populations.

The Emergency Department lacks safe holding rooms for patients with behavioral health concerns. Registration Staff are not within the secure perimeter of the department. We still have curtained treatment bays so patients and visitors can hear all the details of the care of the neighboring patients. The number of rooms does not meet the needs of the volume of patients, particularly with consideration given to the length of stays occurring for patients being held in the Emergency Department for lack of appropriate and staffed inpatient mental health beds within Vermont.

NMC's potential decertification process with CMS in 2018 made it clear that for the care of our patients, the safety of our staff, the future of the hospital, and the overall public good, we must invest in a safer, flexible, modern Emergency Department.

4. The project will improve the quality of health care in the State or provide greater access to health care for Vermont's residents, or both.

This project features three substantial advancements in quality of care that will significantly benefit, and be appreciated by, patients throughout our region.

Our hospital and our community will see a significant increase in quality of care thanks to the thoughtfully designed secure, private Safe Holding area for the care, treatment, and holding of patients who are suffering from severe mental health needs with or without suicidal ideation. This safe holding area has its own contained bathroom, shower, and nurses' station. It can serve as a 2-bed Safe Holding secure area; flex up to a 4-bed Safe Holding secure area; or flex to accommodate patients with other emergent medical concerns if need be. It will benefit the patients for whom the space is designed, as well as the other patients seeking care in the Emergency Department through the reduction of disruptions. The safety, privacy, and flexibility provided by this area represents a significant improvement in quality and brings NMC into more complete and robust compliance with the quality focus of CMS in this regard.

This project also improves the quality of care in the NMC Emergency Department by addressing the lack of basic privacy in our core treatment areas which are currently separated only by curtains. This allows patients and visitors to overhear clinical and personal conversations in the neighboring bays, which is simply no longer acceptable in healthcare as standard practice. The lack of true private treatment rooms risks infringement upon important candor within medical discussions and inadvertent impairment of privacy. It also carries with it disruptions in patient and visitor attentiveness during instruction, restfulness during the stay in the Emergency Department, and actual safety concerns as physical disruptions can easily move from one curtained treatment bay to another.

This project also improves the environment of care for patients suffering from airborne infectious diseases. Our design features 2 private Airborne Infectious Isolation Rooms (which are flexible and can also be used for the care of other patients) for the proper and safe care of patients whose conditions necessitate airborne isolation. While our existing temporary portable measures to approximate a true airborne infectious isolation room within the Emergency Department are workable, quality can be improved by avoiding possible set-up delays and risks through the use of properly designed, permanently constructed, dedicated space.

5. The project will not have an undue adverse impact on any other existing services provided by the applicant.

The modernization of the Emergency Department will not have an adverse impact on the other services provided by NMC. The Emergency Department is a self-contained unit with it's own entrance and the renovation will be contained within the physical proximity of the Emergency Department, so it will not unduly interrupt access to other areas. Those temporarily using space within the vacant former Intensive Care Unit (such as our clinical educators) have done so knowing that when a strategic use for this space becomes pressing, they will need to relinquish temporary use of that space. The additional square footage and the reconfiguration of the mechanical room will not create operational issues for NMC's Environmental Services or Facilities departments.

6. ***REPEALED***

Criterion 6 is marked as repealed.

7. The applicant has adequately considered the availability of affordable, accessible transportation services to the facility, if applicable.

The NMC campus is located on the Franklin and Grand Isle counties' public transportation route, serviced by community partner Green Mountain Transit. Our location is also served by the C.I.D.E.R. (Champlain Islanders Developing Essential Resources) service. This project does not change the location of Emergency Department services so will not have a negative impact on transportation access.

8. If the application is for the purchase or lease of new Health Care Information Technology, it conforms with the Health Information Technology Plan established under section 9351 of this title.

This project does not involve the purchase or lease of new Health Care Information Technology.

9. The applicant must show the project will support equal access to appropriate mental health care that meets the Institute of Medicine's Triple Aim.

The modernization of the NMC Emergency Department is consistent with the Institute of Medicine's Triple Aim. The Triple Aim calls for "improve the patient experience of care (including the quality and satisfaction); improving the health of populations; and reducing the per capita cost of healthcare."

The improvement of the patient experience of care is the essence of this project. Given the outdated 30-year-old design of the existing Emergency Department which still features curtained treatment bays, patients do not have the privacy which has become the norm in healthcare and the expectation of our patients. The modernization to private treatment rooms in the Emergency Department will bring the expected level of privacy, safety, and restfulness that are now fundamental components of a quality patient experience. This project will allow our patients

suffering from severe mental health issues or suicidal ideations to be treated in an area specifically designed to meet their unique needs and challenges, increasing the safety for both patients and staff. Similarly, patients suffering from airborne illnesses will now be treated in permanent airborne isolation rooms, increasing the safety for patients and staff. The improved workflows made possible by the proper capacity of treatment rooms and the improved design of support areas will also directly contribute to improved patient through-put, a significant factor in patient satisfaction with their care experience.

This project also supports the aim of improving the health of the population. The Emergency Department is a crucial provider of care within our community and having appropriate access to quality emergent care is a foundational component of basic population health. The privacy provided in the modern design allows for improved candor in patient/provider consultation and improved understanding in patient education. We believe this will strengthen the transitions of care and contribute to improved healing and recovery. The new design also provides better workspace for our SBIRT (Screening, Brief Intervention, and Referral to Treatment) personnel and embedded Care Managers, whose work on connections to recovery and transitions of care will also benefit from improved privacy in their conversations with patients.

This project also aligns with efforts to contain healthcare costs. NMC has had an emphasis on "the right care at the right time in the right location" as we have worked to reduce non-emergent use of our Emergency Department. Our Emergency Department team works with individuals to understand the importance of a relationship with Primary Care and the availability of Urgent Care. Those efforts to encourage patients to seek the appropriate care in less expensive settings will continue in the modernized space. Our goal is not to increase revenue through growth in Emergency Department visits. Rather, our goal is to ensure appropriate access to emergent care in a high-quality, safe, private, and efficient environment as we help lead Vermont's transformation from fee-for-service medicine to a capitated population health based system. As we designed this project, we were very attentive to costs and the means of our organization and our community. Knowing that the need for a project such as this would be coming, our community Board of Directors has intentionally structured NMC's balance sheet to allow us to achieve this improvement without the added expense of additional debt.

HRAP Standards:

CON STANDARD 1.6: Applicants seeking to develop a new health care project shall explain how the applicant will collect and monitor data relating to health care quality and outcomes related to the proposed new health care project. To the extent practicable, such data collection and monitoring shall be aligned with related data collection and monitoring efforts, whether within the applicant's organization, other organizations or the government.

Rather than being a "new health care project," the NMC Emergency Department is a long-standing service. It has a well-established set of quality metric set and data dashboard of key clinical indicators collected and monitored through a collaboration of our Emergency Department providers and nurses; our Quality Department; our Informaticists; and our Decision Support team. We will continue to track such measures as volumes, hallway bed usage, length of

stay, "Left Without Being Seen" occurrences, crisis utilization and other pertinent quality and efficiency metrics. The modernization of the Emergency Department will not necessitate a material change in our data collection and monitoring efforts. We do anticipate that metrics relating to patient satisfaction will improve as a result of more appropriate care settings, a reduction in disruptions, and increased privacy. We anticipate that provider, nurse, and staff satisfaction will improve in areas relating to the nature of their care environment. We anticipate that patient flow will be improved. We will also have stronger fulfillment of CMS standards relating to the care of patients suffering from severe mental health issues or suicidal ideations.

CON STANDARD 1.7: Applicants seeking to develop a new health care project shall explain how such project is consistent with evidence-based practice. Such explanation may include a description of how practitioners will be made aware of evidence-based practice guidelines and how such guidelines will be incorporated into ongoing decision making. (2005 State Health Plan, page 48.)

Rather than being a "new health care project," the NMC Emergency Department is a long-standing service. Evidence-based clinical best practice is embedded within the daily care and treatment provided within the existing space under the Medical Direction of John Minadeo, M.D. The modernization project provides more appropriate clinical space for the delivery of exceptional care, particularly the secure, dedicated, flexible Safe Holding Rooms; the now-private treatment rooms; and the airborne infectious isolation rooms. Our providers, nurses, and staff will now have a physical care environment which supports, reinforces, and promotes exceptional care rather than one which requires constant work-arounds to provide safe, appropriate, and private care.

CON STANDARD 1.8: Applicants seeking to develop a new health care project shall demonstrate, as appropriate, that the applicant has a comprehensive evidence-based system for controlling infectious disease.

Rather than being a "new health care project," the NMC Emergency Department is a long-standing service. It has proper infection control procedures and monitoring in place. The conversion of the non-private curtained treatment bays to private treatment rooms will allow for better physical separation of patients which supports improved infection control. NMC's ability to care for patients with infectious disease will be advanced through the creation of 2 private Airborne Infectious Isolation Rooms (which are flexible and can be used for the care of other patients). While our existing temporary portable measures to approximate a true airborne infectious isolation room within the Emergency Department are workable, quality can be improved by avoiding possible set-up delays and risks through the use of properly designed, permanently constructed, dedicated space.

CON STANDARD 1.9: Applicants proposing construction projects shall show that costs and methods of the proposed construction are necessary and reasonable. Applicants shall show that the project is cost-effective and that reasonable energy conservation measures have been taken.

NMC has undergone a multi-year process to determine the appropriate scope and scale for this project to balance community need, appropriate capacity, and overall cost. NMC has also engaged a design and construction firm with significant experience with Emergency Departments in Vermont. Environments for Health Architecture and E.F. Wall and Associates, Inc. have helped to guide the process and confirm that methods for construction are appropriate and reflect the best value. To further confirm that this project is reasonably priced, a comparison with other emergency department renovation/addition projects in Vermont that went through the CON process was conducted (see Exhibit 3, the table of comparable projects) and NMC's project is inline and compares favorably.

NMC has demonstrated its commitment to improving energy efficiency through the creation of the Continuous Energy Improvement Committee. This committee is made up of hospital employees from various departments including Facilities, Information Technologies and Finance as well as industry partners and Efficiency Vermont. From its inception in June of 2018 this committee has pursued energy reduction measures both large and small. This committee also reviews and advises on all major projects that have an energy impact, including the Emergency Department project. With the support of this committee and Efficiency Vermont, NMC will ensure that reasonable energy conservation measures are taken.

CON STANDARD 1.10: Applicants proposing new health care projects requiring construction shall show such projects are energy efficient. As appropriate, applicants shall show that Efficiency Vermont, or an organization with similar expertise, has been consulted on the proposal.

The project will be designed to meet or exceed the energy efficiency requirements outlined in the Vermont Commercial Energy Standards, 2001 edition. We are incorporating energy efficient strategies including LED (Light Emitting Diode) lighting; DDC (Direct Digital Controls) upgrades for the HVAC (Heating, Ventilation, and Air Conditioning) systems; and VAV (Variable Air Volume) technology with occupancy controls. We are consulting with Efficiency Vermont in the identification, adoption, and refinement of appropriate energy efficiency strategies for our project. (Please see Exhibit 6, the Efficiency Vermont commitment letter).

CON STANDARD 1.12: New construction health care projects shall comply with the Guidelines for Design and Construction of Health Care Facilities as issued by the Facility Guidelines Institute (FGI), 2014 edition.

This project has been designed through E4H Architects, a firm with extensive expertise in healthcare design. The project as designed complies with the relevant provisions of the FGI Guidelines, 2014 Edition. Please see Exhibit 5 for details on FGI compliance.

CON STANDARD 3.4: Applicants subject to budget review shall demonstrate that a proposed project has been included in hospital budget submissions or explain why inclusion was not feasible.

Estimated costs relating to the Emergency Department modernization project have been included in NMC's annual budget submissions to the GMCB for several years, including the FY 2019 and FY 2020 budget submissions, and have been refined as the project's scope has been refined.

CON STANDARD 3.18: Applicants seeking to enhance or expand emergency room capacity shall explain what measures are also being taken to address primary care infrastructure limitations that may be increasing pressure on emergency departments.

NMC has invested in expanding Primary Care access by employing physicians and advanced practice providers who may have otherwise left the community; recruiting additional providers; facilitating the Federally Qualified Health Center's relocation to our campus; and subsidizing the Hospitalist program which contributes to the quality of life and therefore retention of Primary Care providers. We stepped in when the large local community-based Pediatric practice was near dissolution and invested in the employment of their practice to preserve and expand access to Pediatric Care. We operate – at a financial loss to the organization – two busy Urgent Care sites in Franklin County to provide additional alternative care settings. We have collaborated with Northwestern Counseling and Support Services on strategies to help reduce avoidable mental health visits to the Emergency Department. We have also invested in part-time medical specialty clinics, such as Cardiology, with the belief that one benefit of improved access to preventive specialty care may be addressing conditions before they worsen and become emergent. We have also invested in "Right Care, Right Place" messaging to help educate our community on what conditions should be brought to the Emergency Department and what can be better addressed at a lower cost through Primary Care, Pediatrics, Urgent Care, or another setting. With turnover, including anticipated retirements among our Primary Care providers and Pediatricians, NMC continues to actively recruit to ensure proper community access to appropriate care in non-emergent settings.

CON STANDARD 4.3: Applicants seeking to expand emergency departments shall address how they plan to provide access to on-call emergency psychiatry consultations and how the expansion will enhance current or emerging mental health and substance abuse needs in the applicant's service area.

NMC has a strong working relationship with Northwestern Counseling & Support Services (NCSS), the mental health agency which serves the Franklin and Grand Isle counties location. The main NCSS facility is located on the NMC campus, just a short walk from the NMC Emergency Department. NMC has well-established contractual relationships with NCSS for on-call emergency psychiatry consultations. We have embedded a nurse case manager, a mental health crisis clinician and SBIRT (Screening, Brief Intervention, and Referral to Treatment) clinicians within our Emergency Department. This design will allow them the proper space they need to confidentially collaborate with one another and to make sensitive phone calls with their community partners to facilitate transitions of care in hopes of better addressing the

patient's underlying condition, and therefore avoid future visits. We also have a long-standing collaborative relationship with The Howard Center and their Public Inebriate service.

The modernization of the NMC Emergency Department is directly responsive to current/emerging mental health and substance abuse needs in our community. Mental Health and Substance Abuse were the top two priorities in both the 2015/16 Community Health Needs Assessment (CHNA) for our region and the new 2018/19 assessment. With these pressing needs in our community and the continued concerns regarding appropriate and staffed inpatient beds at the state level for patients with these needs, it is imperative that NMC create local infrastructure to provide a safe environment for emergent patients while they await proper placement. This project creates a flexible layout with 2 dedicated private Safe Holding Rooms and 2 convertible private Safe Holding Rooms for the care of patients with severe mental health issues or suicidal ideations. They can also be used for patients being treated for substance abuse. This area includes a dedicated shower, bathroom, and nurses' station. This will bring us into true compliance with CMS expectations regarding the environment of care for patients with these needs.

It is crucial to understand that this new and necessary resource does not lessen the need for the proper number of appropriate and staffed inpatient bed capacity at the state level for patients suffering from mental health issues or substance abuse. These are not inpatient beds and our staffing is not designed to care for patients with these needs for extended periods of time. The larger issue of capacity within Vermont's system for patients of this nature must still be addressed.

CON STANDARD 4.5: To the extent possible, an applicant seeking to implement a new health care project shall ensure that such project supports further integration of mental health, substance abuse and other health care.

Rather than being a "new health care project," the NMC Emergency Department is a long-standing service. However, as previously shared, NMC has well-established contractual relationships with NCSS for on-call emergency psychiatry consultations. We have embedded a mental health crisis clinician as well as SBIRT (Screening, Brief Intervention, and Referral to Treatment) clinicians within our Emergency Department. We also have a long-standing collaborative relationship with The Howard Center and their Public Inebriate service. The modernization of the NMC Emergency Department is directly responsive to current/emerging mental health and substance abuse needs in our community. Mental Health and Substance Abuse were the top two priorities in both the 2015/16 Community Health Needs Assessment (CHNA) for our region and the new 2018/19 assessment. With these pressing needs in our community and the continued concerns regarding appropriate and staffed inpatient beds at the state level for patients with these needs, it is imperative that NMC create local infrastructure to provide a safe environment for emergent patients while they await proper placement. This project creates a flexible layout with 2 dedicated private Safe Holding Rooms and 2 convertible private Safe Holding Rooms for the care of patients with severe mental health issues or suicidal ideations. They can also be used for patients being treated for substance abuse. This area includes a dedicated shower, bathroom, and nurses' station. This will bring us into true compliance with CMS expectations regarding the environment of care for patients with these needs.

NOTE: When completing this table make entries in the shaded fields only.

Northwestern Medical Center
Emergency Department Modernization
TABLE 1
PROJECT COSTS

Construction Costs	
1. New Construction	$ 1,895,384
2. Renovation	$2,995,225
3. Site Work	114,989
4. Fixed Equipment	-
5. Design/Bidding Contingency	$506,847
6. Construction Contingency	$847,618
7. Construction Manager Fee	138,345
8. Other (please specify)	-
Subtotal	$ 6,498,408
Related Project Costs	
1. Major Moveable Equipment	$ -
2. Furnishings, Fixtures & Other Equip.	$444,296
3. Architectural/Engineering Fees	$567,810
4. Land Acquisition	-
5. Purchase of Buildings	-
6. Administrative Expenses & Permits	$105,701
7. Debt Financing Expenses (see below)	-
8. Debt Service Reserve Fund	-
9. Working Capital	-
10. Other (please specify)	-
	-
	-
Subtotal	$ 1,117,807
Total Project Costs	**$ 7,616,215**

Debt Financing Expenses	
1. Capital Interest	$ -
2. Bond Discount or Placement Fee	-
3. Misc. Financing Fees & Exp. (issuance costs)	-
4. Other	-
Subtotal	$ -
Less Interest Earnings on Funds	
1. Debt Service Reserve Funds	$ -
2. Capitalized Interest Account	-
3. Construction Fund	-
4. Other	-
Subtotal	$ -
Total Debt Financing Expenses	**$ -**
feeds to line 7 above	

NOTE: When completing this table make entries in the shaded fields only.

Northwestern Medical Center
Emergency Department Modernization
TABLE 2
DEBT FINANCING ARRANGEMENT, SOURCES & USES OF FUNDS

Sources of Funds

1. Financing Instrument	Bond		
a. Interest Rate	0.0%		
b. Loan Period		To:	
c. Amount Financed			$ -
2. Equity Contribution			7,616,215
3. Other Sources			
a. Working Capital			-
b. Fundraising			(500,000)
c. Grants			-
d. Other			-
Total Required Funds			**$ 7,116,215**

Uses of Funds

Project Costs (feeds from Table 1)		
1. New Construction	$	1,895,384
2. Renovation		2,995,225
3. Site Work		114,989
4. Fixed Equipment		-
5. Design/Bidding Contingency		506,847
6. Construction Contingency		847,618
7. Construction Manager Fee		138,345
8. Major Moveable Equipment		-
9. Furnishings, Fixtures & Other Equip.		444,296
10. Architectural/Engineering Fees		567,810
11. Land Acquisition		-
12. Purchase of Buildings		-
13. Administrative Expenses & Permits		105,701
14. Debt Financing Expenses		-
15. Debt Service Reserve Fund		-
16. Working Capital		-
17. Other (please specify)		-
Total Uses of Funds	**$**	**7,616,215**

Total sources should equal total uses of funds.

NORTHWESTERN MEDICAL CENTER

Emergency Department Modernization

INCOME STATEMENT

Table 3A

WITHOUT PROJECT

	2017	2018		2018		2019		Proposed Yr 1 2020		Proposed Yr 2 2021		Proposed Yr 3 2022	
	Actual	Budget	% change	Actuals	% change	Budget	% change		% change		% change		% change
REVENUES													
INPATIENT CARE REVENUE	42,419,726	44,039,006	3.8%	41,705,203	-5.3%	45,499,950	9.1%	45,702,097	0.4%	47,301,670	3.5%	48,957,229	3.5%
OUTPATIENT CARE REVENUE	105,957,760	112,071,545	5.8%	113,754,494	1.5%	115,372,701	1.4%	132,137,209	14.5%	136,762,011	3.5%	141,548,682	3.5%
OUTPATIENT CARE REVENUE - PHYSICIAN	37,482,140	47,077,294	25.6%	42,259,415	-10.2%	49,776,895	17.8%	45,910,638	-7.8%	47,517,510	3.5%	49,180,623	3.5%
CHRONIC/SNF PT CARE REVENUE	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
SWING BEDS PT CARE REVENUE	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
GROSS PATIENT CARE REVENUE	185,859,626	203,187,845	9.3%	197,719,112	-2.7%	210,649,546	6.5%	223,749,944	6.2%	231,581,192	3.5%	239,686,534	3.5%
DISPROPORTIONATE SHARE PAYMENTS	1,742,991	1,278,056	-26.7%	1,194,679	-6.5%	944,549	-20.9%	934,355	-1.1%	934,355	0.0%	934,355	0.0%
BAD DEBT FREE CARE	(5,755,599)	(6,881,258)	19.6%	(7,379,483)	7.2%	(6,881,995)	-6.7%	(8,295,323)	20.5%	(8,585,659)	3.5%	(8,885,180)	3.5%
DEDUCTIONS FROM REVENUE	(80,736,594)	(114,224,902)	41.5%	(102,608,415)	-10.2%	(123,235,251)	20.1%	(124,052,177)	0.7%	(135,474,997)	9.2%	(140,216,622)	3.5%
			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
NET PATIENT CARE REVENUE	101,110,424	83,359,741	-17.6%	88,925,893	6.7%	81,476,849	-8.4%	92,336,799	13.3%	88,454,891	-4.2%	91,519,087	3.5%
FIXED PROSPECTIVE PAYMENTS AND RESERVES	-	22,768,482	#DIV/0!	14,391,875	-36.8%	31,297,131	117.5%	24,589,780	-21.4%	32,564,119	32.4%	33,735,588	3.6%
NET PATIENT CARE REV & FIXED PAYMENTS & RESERVES	101,110,424	106,128,223	5.0%	103,317,768	-2.6%	112,773,980	9.2%	116,926,579	3.7%	121,019,009	3.5%	125,254,675	3.5%
OTHER OPERATING REVENUE	5,313,543	5,841,987	9.9%	6,527,916	11.7%	6,166,078	-5.5%	5,511,054	-10.6%	5,511,054	0.0%	5,511,054	0.0%
TOTAL OPERATING REVENUE	106,423,967	111,970,210	5.2%	109,845,684	-1.9%	118,940,058	8.3%	122,437,633	2.9%	126,530,063	3.3%	130,765,729	3.3%
OPERATING EXPENSE													
SALARIES NON MD	38,663,374	39,116,212	1.2%	40,078,144	2.5%	41,985,554	4.8%	43,527,306	3.7%	44,083,125	1.3%	45,405,619	3.0%
FRINGE BENEFITS NON MD	11,070,787	10,684,073	-3.5%	10,996,812	2.9%	10,817,875	-1.6%	11,039,032	2.0%	11,370,203	3.0%	11,711,309	3.0%
FRINGE BENEFITS MD	1,683,576	1,372,541	-18.5%	1,141,538	-16.8%	1,404,109	23.0%	1,564,905	11.5%	1,611,852	3.0%	1,660,208	3.0%
PHYSICIAN FEES SALARIES CONTRACTS & FRINGES	15,581,139	16,009,275	2.7%	17,618,115	10.0%	17,654,647	0.2%	18,491,986	4.7%	19,046,746	3.0%	19,618,148	3.0%
HEALTH CARE PROVIDER TAX	5,976,583	6,116,156	2.3%	6,169,059	0.9%	6,419,916	4.1%	7,288,305	13.5%	7,015,595	-3.7%	7,261,141	3.5%
DEPRECIATION AMORTIZATION	4,703,776	6,042,151	28.5%	5,067,273	-16.1%	6,100,000	20.4%	6,702,192	9.9%	6,642,917	-0.9%	7,255,697	9.2%
INTEREST - LONG/SHORT TERM	586,527	1,157,186	97.3%	702,852	-39.3%	800,000	13.8%	961,816	20.2%	800,000	-16.8%	800,000	0.0%
OTHER OPERATING EXPENSE	29,418,029	30,660,282	4.2%	31,801,511	3.7%	31,061,246	-2.3%	31,289,968	0.7%	32,228,667	3.0%	33,195,527	3.0%
TOTAL OPERATING EXPENSE	107,683,791	111,157,876	3.2%	113,575,304	2.2%	116,243,347	2.3%	120,865,510	4.0%	122,799,105	1.6%	126,907,648	3.3%
NET OPERATING INCOME (LOSS)	(1,259,824)	812,334	-164.5%	(3,729,620)	-559.1%	2,696,711	-172.3%	1,572,123	-41.7%	3,730,959	137.3%	3,858,080	3.4%
NON-OPERATING REVENUE	9,149,976	752,188	-91.8%	4,348,314	478.1%	1,151,419	-73.5%	1,408,610	22.3%	1,408,610	0.0%	1,408,610	0.0%
EXCESS (DEFICIT) OF REVENUE OVER EXPENSE	7,890,152	1,564,522	-80.2%	618,694	-60.5%	3,848,130	522.0%	2,980,733	-22.5%	5,139,569	72.4%	5,266,690	2.5%
Operating Margin %	-1.2%	0.7%		-3.4%		2.3%		1.3%		2.9%		3.0%	
Bad Debt & Free Care%	3.1%	3.4%		3.7%		3.3%		3.7%		3.7%		3.7%	
Compensation Ratio	62.2%	60.4%		61.5%		61.8%		61.7%		62.0%		61.8%	
Capital Cost % of Total Expenses	4.9%	6.5%		5.1%		5.9%		6.3%		6.1%		6.3%	

Emergency Department Modernization

INCOME STATEMENT

Table 3B

PROJECT ONLY

	2017 Actual	2018 Budget	% change	2018 Actuals	% change	2019 Budget	% change	Proposed Yr 2 2020	% change	Proposed Yr 2 2021	% change	Proposed Yr 3 2022	% change
REVENUES													
INPATIENT CARE REVENUE			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
OUTPATIENT CARE REVENUE			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
OUTPATIENT CARE REVENUE - PHYSICIAN			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
CHRONIC/SNF PT CARE REVENUE			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
SWING BEDS PT CARE REVENUE			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
GROSS PATIENT CARE REVENUE	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
DISPROPORTIONATE SHARE PAYMENTS			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
BAD DEBT FREE CARE			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
DEDUCTIONS FROM REVENUE			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
NET PATIENT CARE REVENUE	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
FIXED PROSPECTIVE PAYMENTS AND RESERVES	-	22,768,482	#DIV/0!		-100.0%		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
NET PATIENT CARE REV & FIXED PAYMENTS & RESERVES			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
OTHER OPERATING REVENUE			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
TOTAL OPERATING REVENUE	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
OPERATING EXPENSE													
SALARIES NON MD			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
FRINGE BENEFITS NON MD			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
FRINGE BENEFITS MD			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
PHYSICIAN FEES SALARIES CONTRACTS & FRINGES			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
HEALTH CARE PROVIDER TAX			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
DEPRECIATION AMORTIZATION			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!	158357	#DIV/0!	475072	200.0%
INTEREST - LONG/SHORT TERM			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
OTHER OPERATING EXPENSE			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
TOTAL OPERATING EXPENSE	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	158,357	#DIV/0!	475,072	200.0%
NET OPERATING INCOME (LOSS)	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	(158,357)	#DIV/0!	(475,072)	200.0%
NON-OPERATING REVENUE			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
EXCESS (DEFICIT) OF REVENUE OVER EXPENSE	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	(158,357)	#DIV/0!	(475,072)	200.0%

NORTHWESTERN MEDICAL CENTER

Emergency Department Modernization

Note: This table requires no "fill-in" as it is populated automatically

INCOME STATEMENT

Table 3C

WITH PROJECT

	2017	2018		2018		2019		Proposed Yr 2		Proposed Yr 2		Proposed Yr 3	
	Actual	Budget	% change	Actuals	% change	Budget	% change	2020	% change	2021	% change	2022	% change
REVENUES													
INPATIENT CARE REVENUE	42,419,726	44,039,006	3.8%	41,705,203	-5.3%	45,499,950	9.1%	45,702,097	0.4%	47,301,670	3.5%	48,957,229	3.5%
OUTPATIENT CARE REVENUE	105,957,760	112,071,545	5.8%	113,754,494	1.5%	115,372,701	1.4%	132,137,209	14.5%	136,762,011	3.5%	141,548,682	3.5%
OUTPATIENT CARE REVENUE - PHYSICIAN	37,482,140	47,077,294	25.6%	42,259,415	-10.2%	49,776,895	17.8%	45,910,638	-7.8%	47,517,510	3.5%	49,180,623	3.5%
CHRONIC/SNF PT CARE REVENUE	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
SWING BEDS PT CARE REVENUE	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
GROSS PATIENT CARE REVENUE	185,859,626	203,187,845	9.3%	197,719,112	-2.7%	210,649,546	6.5%	223,749,944	6.2%	231,581,192	3.5%	239,686,534	3.5%
DISPROPORTIONATE SHARE PAYMENTS	1,742,991	1,278,056	-26.7%	1,194,679	-6.5%	944,549	-20.9%	934,355	-1.1%	934,355	0.0%	934,355	0.0%
BAD DEBT FREE CARE	(5,755,599)	(6,881,258)	19.6%	(7,379,483)	7.2%	(6,881,995)	-6.7%	(8,295,323)	20.5%	(8,585,659)	3.5%	(8,885,180)	3.5%
DEDUCTIONS FROM REVENUE	(80,736,594)	(114,224,902)	41.5%	(102,608,415)	-10.2%	(123,235,251)	20.1%	(124,052,177)	0.7%	(135,474,997)	9.2%	(140,216,622)	3.5%
	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
NET PATIENT CARE REVENUE	101,110,424	83,359,741	-17.6%	88,925,893	6.7%	81,476,849	-8.4%	92,336,799	13.3%	88,454,891	-4.2%	91,519,087	3.5%
FIXED PROSPECTIVE PAYMENTS AND RESERVES	-	45,536,964	#DIV/0!	14,391,875	-68.4%	31,297,131	117.5%	24,589,780	-21.4%	32,564,119	32.4%	33,735,588	3.6%
NET PATIENT CARE REV & FIXED PAYMENTS & RESERVES	101,110,424	106,128,223	5.0%	103,317,768	-2.6%	112,773,980	9.2%	116,926,579	3.7%	121,019,009	3.5%	125,254,675	3.5%
OTHER OPERATING REVENUE	5,313,543	5,841,987	9.9%	6,527,916	11.7%	6,166,078	-5.5%	5,511,054	-10.6%	5,511,054	0.0%	5,511,054	0.0%
TOTAL OPERATING REVENUE	106,423,967	111,970,210	5.2%	109,845,684	-1.9%	118,940,058	8.3%	122,437,633	2.9%	126,530,063	3.3%	130,765,729	3.3%
OPERATING EXPENSE													
SALARIES NON MD	38,663,374	39,116,212	1.2%	40,078,144	2.5%	41,985,554	4.8%	43,527,306	3.7%	44,083,125	1.3%	45,405,619	3.0%
FRINGE BENEFITS NON MD	11,070,787	10,684,073	-3.5%	10,996,812	2.9%	10,817,875	-1.6%	11,039,032	2.0%	11,370,203	3.0%	11,711,309	3.0%
FRINGE BENEFITS MD	1,683,576	1,372,541	-18.5%	1,141,538	-16.8%	1,404,109	23.0%	1,564,905	11.5%	1,611,852	3.0%	1,660,208	3.0%
PHYSICIAN FEES SALARIES CONTRACTS & FRINGES	15,581,139	16,009,275	2.7%	17,618,115	10.0%	17,654,647	0.2%	18,491,986	4.7%	19,046,746	3.0%	19,618,148	3.0%
HEALTH CARE PROVIDER TAX	5,976,583	6,116,156	2.3%	6,169,059	0.9%	6,419,916	4.1%	7,288,305	13.5%	7,015,595	-3.7%	7,261,141	3.5%
DEPRECIATION AMORTIZATION	4,703,776	6,042,151	28.5%	5,067,273	-16.1%	6,100,000	20.4%	6,702,192	9.9%	6,801,274	1.5%	7,730,769	13.7%
INTEREST - LONG/SHORT TERM	586,527	1,157,186	97.3%	702,852	-39.3%	800,000	13.8%	961,816	20.2%	800,000	-16.8%	800,000	0.0%
OTHER OPERATING EXPENSE	29,418,029	30,660,282	4.2%	31,801,511	3.7%	31,061,246	-2.3%	31,289,968	0.7%	32,228,667	3.0%	33,195,527	3.0%
TOTAL OPERATING EXPENSE	107,683,791	111,157,876	3.2%	113,575,304	2.2%	116,243,347	2.3%	120,865,510	4.0%	122,957,462	1.7%	127,382,720	3.6%
NET OPERATING INCOME (LOSS)	(1,259,824)	812,334	-164.5%	(3,729,620)	-559.1%	2,696,711	-172.3%	1,572,123	-41.7%	3,572,602	127.2%	3,383,008	-5.3%
NON-OPERATING REVENUE	9,149,976	752,188	-91.8%	4,348,314	478.1%	1,151,419	-73.5%	1,408,610	22.3%	1,408,610	0.0%	1,408,610	0.0%
EXCESS (DEFICIT) OF REVENUE OVER EXPENSE	7,890,152	1,564,522	-80.2%	618,694	-60.5%	3,848,130	522.0%	2,980,733	-22.5%	4,981,212	67.1%	4,791,618	-3.8%
Operating Margin %	-1.2%	0.7%		-3.4%		2.3%		1.3%		2.8%		2.6%	
Bad Debt & Free Care%	3.1%	3.4%		3.7%		3.3%		3.7%		3.7%		3.7%	
Compensation Ratio	62.2%	60.4%		61.5%		61.8%		61.7%		61.9%		61.5%	
Capital Cost % of Total Expenses	4.9%	6.5%		5.1%		5.9%		6.3%		6.2%		6.7%	

NORTHWESTERN MEDICAL CENTER

EMERGENCY DEPARTMENT MODERNIZATION

Balance Sheet

WITHOUT PROJECT

	2017 Actual	2018 Budget	% change	2018 Actuals	% change	2019 Budget	% change	2020 Proposed Year 1	% change	2021 Proposed Year 2	% change	2022 Proposed Year 3	% change
ASSETS													
CURRENT ASSETS													
CASH & INVESTMENTS	63,385,539	54,458,618	-14.1%	65,594,524	20.4%	69,000,000	5.2%	66,000,000	-4.3%	63,776,996	-3.4%	67,596,004	6.0%
PATIENT ACCOUNTS RECEIVABLE, GROSS	24,207,080	22,000,000	-9.1%	26,798,149	21.8%	29,000,000	8.2%	31,000,000	6.9%	31,000,000	0.0%	31,000,000	0.0%
LESS: ALLOWANCE FOR UNCOLLECTIBLE ACCTS	(13,797,372)	(9,000,000)	-34.8%	(17,794,020)	97.7%	(20,000,000)	12.4%	(21,000,000)	5.0%	(21,000,000)	0.0%	(21,000,000)	0.0%
DUE FROM THIRD PARTIES	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
OTHER CURRENT ASSETS	5,419,361	4,250,000	-21.6%	5,372,087	26.4%	7,000,000	30.3%	7,000,000	0.0%	7,000,000	0.0%	7,000,000	0.0%
TOTAL CURRENT ASSETS	79,214,608	71,708,618	-9.5%	79,970,740	11.5%	85,000,000	6.3%	83,000,000	-2.4%	80,776,996	-2.7%	84,596,004	4.7%
BOARD DESIGNATED ASSETS					#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
FUNDED DEPRECIATION	23,995,468	14,500,000	-39.6%	16,792,172	15.8%	19,000,000	13.1%	18,000,000	-5.3%	18,000,000	0.0%	18,000,000	0.0%
ESCROWED BOND FUNDS	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
OTHER	6,120,588	4,950,000	-19.1%	6,658,137	34.5%	4,500,000	-32.4%	6,000,000	33.3%	6,000,000	0.0%	6,000,000	0.0%
TOTAL BOARD DESIGNATED ASSETS	30,116,056	19,450,000	-35.4%	23,450,309	20.6%	23,500,000	0.2%	24,000,000	2.1%	24,000,000	0.0%	24,000,000	0.0%
PROPERTY, PLANT, AND EQUIPMENT													
LAND, BUILDINGS & IMPROVEMENTS	57,334,829	85,668,842	49.4%	85,746,127	0.1%	85,500,000	-0.3%	90,500,000	5.8%	97,490,000	7.7%	99,445,000	2.0%
CONSTRUCTION IN PROGRESS	22,246,790	500,000	-97.8%	1,163,444	132.7%	1,000,000	-14.0%	1,500,000	50.0%	1,500,000	0.0%	1,500,000	0.0%
MAJOR MOVABLE EQUIPMENT	33,442,282	43,450,993	29.9%	37,773,441	-13.1%	43,000,000	13.8%	43,500,000	1.2%	48,641,965	11.8%	53,938,189	10.9%
FIXED EQUIPMENT	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
TOTAL PROPERTY, PLANT AND EQUIPMENT	113,023,901	129,619,835	14.7%	124,683,012	-3.8%	129,500,000	3.9%	135,500,000	4.6%	147,631,965	9.0%	154,883,189	4.9%
LESS: ACCUMULATED DEPRECIATION													
LAND, BUILDINGS & IMPROVEMENTS	(27,050,289)	(29,828,974)	10.3%	(29,575,031)	-0.9%	(31,500,000)	6.5%	(34,700,000)	10.2%	(37,094,872)	6.9%	(39,424,359)	6.3%
EQUIPMENT - FIXED	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
EQUIPMENT - MAJOR MOVEABLE	(25,117,409)	(28,470,746)	13.4%	(27,481,841)	-3.5%	(30,000,000)	9.2%	(33,000,000)	10.0%	(37,074,010)	12.3%	(42,157,105)	13.7%
TOTAL ACCUMULATED DEPRECIATION	(52,167,698)	(58,299,720)	11.8%	(57,056,872)	-2.1%	(61,500,000)	7.8%	(67,700,000)	10.1%	(74,168,882)	9.6%	(81,581,464)	10.0%
TOTAL PROPERTY, PLANT AND EQUIPMENT, NET	60,856,203	71,320,115	17.2%	67,626,140	-5.2%	68,000,000	0.6%	67,800,000	-0.3%	73,463,083	8.4%	73,301,725	-0.2%
OTHER LONG-TERM ASSETS	880,014	1,300,000	47.7%	2,547,776	96.0%	1,300,000	-49.0%	1,963,167	51.0%	1,963,167	0.0%	1,963,167	0.0%
TOTAL ASSETS	**171,066,881**	**163,778,733**	**-4.3%**	**173,594,965**	**6.0%**	**177,800,000**	**2.4%**	**176,763,167**	**-0.6%**	**180,203,246**	**1.9%**	**183,860,896**	**2.0%**
LIABILITIES AND FUND BALANCE													
CURRENT LIABILITIES													
ACCOUNTS PAYABLE	4,164,425	4,000,000	-3.9%	3,788,161	-5.3%	3,000,000	-20.8%	3,500,000	-7.6%	3,500,000	0.0%	3,500,000	0.0%
SALARIES, WAGES AND PAYROLL TAXES PAYABLE	3,220,246	3,900,000	21.1%	3,935,976	0.9%	4,500,000	14.3%	4,500,000	14.3%	4,500,000	0.0%	4,500,000	0.0%
ESTIMATED THIRD-PARTY SETTLEMENTS	1,911,849	1,950,000	2.0%	2,822,130	44.7%	2,431,726	-13.8%	4,500,000	59.5%	4,500,000	0.0%	4,500,000	0.0%
OTHER CURRENT LIABILITIES	1,270,106	1,200,000	-5.5%	1,261,806	5.2%	1,200,000	-4.9%	1,200,000	-4.9%	1,200,000	0.0%	1,200,000	0.0%
CURRENT PORTION OF LONG-TERM DEBT	1,015,636	1,488,276	46.5%	1,488,276	0.0%	955,000	-35.8%	1,566,415	5.3%	1,609,040	2.7%	1,650,290	2.6%
TOTAL CURRENT LIABILITIES	11,582,262	12,538,276	8.3%	13,296,349	6.0%	12,086,726	-9.1%	15,266,415	14.8%	15,309,040	0.3%	15,350,290	0.3%
LONG-TERM DEBT													

NORTHWESTERN MEDICAL CENTER

BONDS & MORTGAGES PAYABLE	32,708,054	31,440,939	-3.9%	31,231,573	-0.7%	31,000,000	-0.7%	28,349,024	-9.2%	26,606,909	-6.1%	24,956,619	-6.2%
CAPITAL LEASE OBLIGATIONS	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
OTHER LONG-TERM DEBT	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
TOTAL LONG-TERM DEBT	32,708,054	31,440,939	-3.9%	31,231,573	-0.7%	31,000,000	-0.7%	28,349,024	-9.2%	26,606,909	-6.1%	24,956,619	-6.2%
OTHER NONCURRENT LIABILITIES	433,263	400,000	-7.7%	2,830,852	607.7%	1,350,000	-52.3%	1,500,000	-47.0%	1,500,000	0.0%	1,500,000	0.0%
TOTAL LIABILITIES	**44,723,579**	**44,379,215**	**-0.8%**	**47,358,774**	**6.7%**	**44,436,726**	**-6.2%**	**45,115,439**	**-4.7%**	**43,415,949**	**-3.8%**	**41,806,909**	**-3.7%**
FUND BALANCE	126,343,302	119,399,518	-5.5%	126,236,191	5.7%	133,363,274	5.6%	131,647,728	4.3%	136,787,297	3.9%	142,053,987	3.9%
TOTAL LIABILITIES AND FUND BALANCE	**171,066,881**	**163,778,733**	**-4.3%**	**173,594,965**	**6.0%**	**177,800,000**	**2.4%**	**176,763,167**	**1.8%**	**180,203,246**	**1.9%**	**183,860,896**	**2.0%**

NORTHWESTERN MEDICAL CENTER

EMERGENCY DEPARTMENT MODERNIZATION

Balance Sheet

PROJECT ONLY

	2017 Actual	2018 Budget	% change	2018 Actuals	% change	2019 Budget	% change	2020 Proposed Year 1	% change	2021 Proposed Year 2	% change	2022 Proposed Year 3	% change
ASSETS													
CURRENT ASSETS													
CASH & INVESTMENTS			#DIV/0!		#DIV/0!		#DIV/0!	-4364300	#DIV/0!	-7616214	74.5%	-7616214	0.0%
PATIENT ACCOUNTS RECEIVABLE, GROSS			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
LESS: ALLOWANCE FOR UNCOLLECTIBLE ACCTS			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
DUE FROM THIRD PARTIES			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
OTHER CURRENT ASSETS			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
TOTAL CURRENT ASSETS	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	(4,364,300)	#DIV/0!	(7,616,214)	74.5%	(7,616,214)	0.0%
BOARD DESIGNATED ASSETS					#DIV/0!		#DIV/0!		#DIV/0!				
FUNDED DEPRECIATION			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
ESCROWED BOND FUNDS			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
OTHER			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
TOTAL BOARD DESIGNATED ASSETS	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
PROPERTY, PLANT, AND EQUIPMENT													
LAND, BUILDINGS & IMPROVEMENTS			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!	6498407	#DIV/0!	6498407	0.0%
CONSTRUCTION IN PROGRESS			#DIV/0!		#DIV/0!		#DIV/0!	4364300	#DIV/0!	0	-100.0%		#DIV/0!
MAJOR MOVABLE EQUIPMENT			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!	1117807	#DIV/0!	1117807	0.0%
FIXED EQUIPMENT			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
TOTAL PROPERTY, PLANT AND EQUIPMENT	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	4,364,300	#DIV/0!	7,616,214	74.5%	7,616,214	0.0%
LESS: ACCUMULATED DEPRECIATION													
LAND, BUILDINGS & IMPROVEMENTS			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!	-105128	#DIV/0!	-420513	300.0%
EQUIPMENT - FIXED			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
EQUIPMENT - MAJOR MOVEABLE			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!	-53229	#DIV/0!	-212916	300.0%
TOTAL ACCUMULATED DEPRECIATION	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	(158,357)	#DIV/0!	(633,429)	300.0%
TOTAL PROPERTY, PLANT AND EQUIPMENT, NET	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	4,364,300	#DIV/0!	7,457,857	70.9%	6,982,785	-6.4%
OTHER LONG-TERM ASSETS			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
TOTAL ASSETS	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	(158,357)	#DIV/0!	(633,429)	300.0%
LIABILITIES AND FUND BALANCE													
CURRENT LIABILITIES													
ACCOUNTS PAYABLE			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
SALARIES, WAGES AND PAYROLL TAXES PAYABLE			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
ESTIMATED THIRD-PARTY SETTLEMENTS			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
OTHER CURRENT LIABILITIES			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
CURRENT PORTION OF LONG-TERM DEBT			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
TOTAL CURRENT LIABILITIES	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!

NORTHWESTERN MEDICAL CENTER

LONG-TERM DEBT												
BONDS & MORTGAGES PAYABLE			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!	
CAPITAL LEASE OBLIGATIONS			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!	
OTHER LONG-TERM DEBT			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!	
TOTAL LONG-TERM DEBT	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
OTHER NONCURRENT LIABILITIES			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!	
TOTAL LIABILITIES	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
FUND BALANCE			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!	-158357	#DIV/0!	-633429	300.0%
TOTAL LIABILITIES AND FUND BALANCE	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	(158,357)	#DIV/0!	(633,429)	300.0%

NORTHWESTERN MEDICAL CENTER

EMERGENCY DEPARTMENT MODERNIZATION

Note: This table requires no "fill-in" as it is populated automatically

Balance Sheet

WITH PROJECT

	2017 Actual	2018 Budget	% change	2018 Actuals	% change	2019 Budget	% change	2,020 Proposed Year 1	% change	2,021 Proposed Year 2	% change	2,022 Proposed Year 3	% change
ASSETS													
CURRENT ASSETS													
CASH & INVESTMENTS	63,385,539	54,458,618	-14.1%	65,594,524	20.4%	69,000,000	5.2%	61,635,700	-10.7%	56,160,782	-8.9%	59,979,790	6.8%
PATIENT ACCOUNTS RECEIVABLE, GROSS	24,207,080	22,000,000	-9.1%	26,798,149	21.8%	29,000,000	8.2%	31,000,000	6.9%	31,000,000	0.0%	31,000,000	0.0%
LESS: ALLOWANCE FOR UNCOLLECTIBLE ACCTS	(13,797,372)	(9,000,000)	-34.8%	(17,794,020)	97.7%	(20,000,000)	12.4%	(21,000,000)	5.0%	(21,000,000)	0.0%	(21,000,000)	0.0%
DUE FROM THIRD PARTIES	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
OTHER CURRENT ASSETS	5,419,361	4,250,000	-21.6%	5,372,087	26.4%	7,000,000	30.3%	7,000,000	0.0%	7,000,000	0.0%	7,000,000	0.0%
TOTAL CURRENT ASSETS	79,214,608	71,708,618	-9.5%	79,970,740	11.5%	85,000,000	6.3%	78,635,700	-7.5%	73,160,782	-7.0%	76,979,790	5.2%
BOARD DESIGNATED ASSETS					#DIV/0!		#DIV/0!		#DIV/0!				
FUNDED DEPRECIATION	23,995,468	14,500,000	-39.6%	16,792,172	15.8%	19,000,000	13.1%	18,000,000	-5.3%	18,000,000	0.0%	18,000,000	0.0%
ESCROWED BOND FUNDS	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
OTHER	6,120,588	4,950,000	-19.1%	6,658,137	34.5%	4,500,000	-32.4%	6,000,000	33.3%	6,000,000	0.0%	6,000,000	0.0%
TOTAL BOARD DESIGNATED ASSETS	30,116,056	19,450,000	-35.4%	23,450,309	20.6%	23,500,000	0.2%	24,000,000	2.1%	24,000,000	0.0%	24,000,000	0.0%
PROPERTY, PLANT, AND EQUIPMENT													
LAND, BUILDINGS & IMPROVEMENTS	57,334,829	85,668,842	49.4%	85,746,127	0.1%	85,500,000	-0.3%	90,500,000	5.8%	103,988,407	14.9%	105,943,407	1.9%
CONSTRUCTION IN PROGRESS	22,246,790	500,000	-97.8%	1,163,444	132.7%	1,000,000	-14.0%	5,864,300	486.4%	1,500,000	-74.4%	1,500,000	0.0%
MAJOR MOVABLE EQUIPMENT	33,442,282	43,450,993	29.9%	37,773,441	-13.1%	43,000,000	13.8%	43,500,000	1.2%	49,759,772	14.4%	55,055,996	10.6%
FIXED EQUIPMENT	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
TOTAL PROPERTY, PLANT AND EQUIPMENT	113,023,901	129,619,835	14.7%	124,683,012	-3.8%	129,500,000	3.9%	139,864,300	8.0%	155,248,179	11.0%	162,499,403	4.7%
LESS: ACCUMULATED DEPRECIATION													
LAND, BUILDINGS & IMPROVEMENTS	(27,050,289)	(29,828,974)	10.3%	(29,575,031)	-0.9%	(31,500,000)	6.5%	(34,700,000)	10.2%	(37,200,000)	7.2%	(39,844,872)	7.1%
EQUIPMENT - FIXED	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
EQUIPMENT - MAJOR MOVEABLE	(25,117,409)	(28,470,746)	13.4%	(27,481,841)	-3.5%	(30,000,000)	9.2%	(33,000,000)	10.0%	(37,127,239)	12.5%	(42,370,021)	14.1%
TOTAL ACCUMULATED DEPRECIATION	(52,167,698)	(58,299,720)	11.8%	(57,056,872)	-2.1%	(61,500,000)	7.8%	(67,700,000)	10.1%	(74,327,239)	9.8%	(82,214,893)	10.6%
TOTAL PROPERTY, PLANT AND EQUIPMENT, NET	60,856,203	71,320,115	17.2%	67,626,140	-5.2%	68,000,000	0.6%	72,164,300	6.1%	80,920,940	12.1%	80,284,510	-0.8%
OTHER LONG-TERM ASSETS	880,014	1,300,000	47.7%	2,547,776	96.0%	1,300,000	-49.0%	1,963,167	51.0%	1,963,167	0.0%	1,963,167	0.0%
TOTAL ASSETS	**171,066,881**	**163,778,733**	**-4.3%**	**173,594,965**	**6.0%**	**177,800,000**	**2.4%**	**176,763,167**	**-0.6%**	**180,044,889**	**1.9%**	**183,227,467**	**1.8%**
LIABILITIES AND FUND BALANCE													
CURRENT LIABILITIES													
ACCOUNTS PAYABLE	4,164,425	4,000,000	-3.9%	3,788,161	-5.3%	3,000,000	-20.8%	3,500,000	-7.6%	3,500,000	0.0%	3,500,000	0.0%
SALARIES, WAGES AND PAYROLL TAXES PAYABLE	3,220,246	3,900,000	21.1%	3,935,976	0.9%	4,500,000	14.3%	4,500,000	14.3%	4,500,000	0.0%	4,500,000	0.0%
ESTIMATED THIRD-PARTY SETTLEMENTS	1,911,849	1,950,000	2.0%	2,822,130	44.7%	2,431,726	-13.8%	4,500,000	59.5%	4,500,000	0.0%	4,500,000	0.0%
OTHER CURRENT LIABILITIES	1,270,106	1,200,000	-5.5%	1,261,806	5.2%	1,200,000	-4.9%	1,200,000	-4.9%	1,200,000	0.0%	1,200,000	0.0%
CURRENT PORTION OF LONG-TERM DEBT	1,015,636	1,488,276	46.5%	1,488,276	0.0%	955,000	-35.8%	1,566,415	5.3%	1,609,040	2.7%	1,650,290	2.6%
TOTAL CURRENT LIABILITIES	11,582,262	12,538,276	8.3%	13,296,349	6.0%	12,086,726	-9.1%	15,266,415	14.8%	15,309,040	0.3%	15,350,290	0.3%

NORTHWESTERN MEDICAL CENTER

LONG-TERM DEBT													
BONDS & MORTGAGES PAYABLE	32,708,054	31,440,939	-3.9%	31,231,573	-0.7%	31,000,000	-0.7%	28,349,024	-9.2%	26,606,909	-6.1%	24,956,619	-6.2%
CAPITAL LEASE OBLIGATIONS	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
OTHER LONG-TERM DEBT	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
TOTAL LONG-TERM DEBT	32,708,054	31,440,939	-3.9%	31,231,573	-0.7%	31,000,000	-0.7%	28,349,024	-9.2%	26,606,909	-6.1%	24,956,619	-6.2%
OTHER NONCURRENT LIABILITIES	433,263	400,000	-7.7%	2,830,852	607.7%	1,350,000	-52.3%	1,500,000	-47.0%	1,500,000	0.0%	1,500,000	0.0%
TOTAL LIABILITIES	**44,723,579**	**44,379,215**	**-0.8%**	**47,358,774**	**6.7%**	**44,436,726**	**-6.2%**	**45,115,439**	**-4.7%**	**43,415,949**	**-3.8%**	**41,806,909**	**-3.7%**
FUND BALANCE	126,343,302	119,399,518	-5.5%	126,236,191	5.7%	133,363,274	5.6%	131,647,728	4.3%	136,628,940	3.8%	141,420,558	3.5%
TOTAL LIABILITIES AND FUND BALANCE	**171,066,881**	**163,778,733**	**-4.3%**	**173,594,965**	**6.0%**	**177,800,000**	**2.4%**	**176,763,167**	**1.8%**	**180,044,889**	**1.9%**	**183,227,467**	**1.8%**

NORTHWESTERN MEDICAL CENTER

Emergency Department Modernization

PAYER REVENUE REPORT

WITHOUT PROJECT

	2017 Actual	2018 Budget	% change	2018 Actuals	% change	2019 Budget	% change	2020 Proposed Year 1	% change	2021 Proposed Year 2	% change	2022 Proposed Year 3	% change
Commercial													
Hospital	59,344,083	62,469,622	5.3%	64,534,464	3.3%	66,890,057	3.7%	72,231,209	8.0%	74,759,301	3.5%	77,375,877	3.5%
Physician	17,165,501	22,191,031	29.3%	20,746,762	-6.5%	24,372,255	17.5%	26,194,233	7.5%	27,111,031	3.5%	28,059,917	3.5%
Total Revenue	76,509,584	84,660,653	10.7%	85,281,226	0.7%	91,262,312	7.0%	98,425,442	7.8%	101,870,332	3.5%	105,435,794	3.5%
Allowances - Hospital	-16,681,255	-18,351,150	10.0%	-20,472,972	11.6%	-21,830,533	6.6%	(20,594,602)	-5.7%	(21,315,413)	3.5%	(22,061,452)	3.5%
Allowances - Physicians	-7,665,470	-10,710,416	39.7%	-7,973,378	-25.6%	-11,594,306	45.4%	(11,459,581)	-1.2%	(11,860,666)	3.5%	(12,275,789)	3.5%
Free Care	-1,112,947	-1,326,726	19.2%	-1,056,665	-20.4%	-1,112,446	5.3%	(1,196,174)	7.5%	(1,238,040)	3.5%	(1,281,371)	3.5%
Bad Debt	-4,642,652	-5,554,532	19.6%	-6,322,818	13.8%	-5,769,549	-8.8%	(7,099,149)	23.0%	(7,347,619)	3.5%	(7,603,809)	3.5%
Net Payer Revenue	46,407,260	48,717,829	5.0%	49,455,393	1.5%	50,955,478	3.0%	58,075,937	14.0%	60,108,594	3.5%	62,213,372	3.5%
Fixed Prospective Payment & Reserves	0	6,330,798	#DIV/0!	20,810	-99.7%	3,622,038	17305.3%	-	-100.0%	-	#DIV/0!	-	#DIV/0!
Total Net Payer Revenue & Fixed Prospective Payment	46,407,260	55,048,627	18.6%	49,476,203	-10.1%	54,577,516	10.3%	58,075,937	6.4%	60,108,594	3.5%	62,213,372	3.5%
Reimbursement Rate - Commercial	61%	65%		58%		60%		59%		59%		59%	
Payer Mix - Commercial	46%	52%		48%		48%		50%		50%		50%	
Medicaid													
Hospital	31,208,482	33,154,870	6.2%	32,172,571	-3.0%	33,640,140	4.6%	33,817,545	0.5%	32,920,164	-2.7%	34,072,370	3.5%
Physician	10,358,011	12,403,236	19.7%	11,407,239	-8.0%	12,261,970	7.5%	12,294,290	0.3%	12,724,590	3.5%	13,169,951	3.5%
Total Revenue	41,566,493	45,558,106	9.6%	43,579,810	-4.3%	45,902,110	5.3%	46,111,835	0.5%	45,644,754	-1.0%	47,242,320	3.5%
Allowances - Hospital	-16,917,392	-26,052,174	54.0%	-24,435,386	-6.2%	-26,389,073	8.0%	(27,729,336)	5.1%	(28,699,862)	3.5%	(29,704,357)	3.5%
Allowances - Physicians	-7,336,214	-7,952,040	8.4%	-7,163,765	-9.9%	-8,769,521	22.4%	(9,076,454)	3.5%	(9,394,130)	3.5%	(9,722,925)	3.5%
Free Care	0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
Bad Debt	0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
Graduate Medical Education Payments-Phys.	0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
Graduate Medical Education Payments-Hosp	0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
Net Payer Revenue	17,312,887	11,553,892	-33.3%	11,980,659	3.7%	10,743,516	-10.3%	9,306,045	-13.4%	7,550,762	-18.9%	7,815,038	3.5%
Fixed Prospective Payment & Reserves	0	6,247,405	#DIV/0!	7,049,497	12.8%	9,150,864	29.8%	11,194,326	22.3%	15,086,127	34.8%	15,645,867	3.7%
Total Net Payer Revenue & Fixed Prospective Payment	17,312,887	17,801,297	2.8%	19,030,156	6.9%	19,894,380	4.5%	20,500,371	3.0%	22,636,889	10.4%	23,460,905	3.6%
Reimbursement Rate - Medicaid	42%	39%		44%		43%		44%		50%		50%	
Payer Mix - Medicaid	17%	17%		18%		18%		18%		19%		19%	
Medicare													
Hospital	57,824,921	60,486,059	4.6%	58,752,662	-2.9%	60,342,454	2.7%	64,954,440	7.6%	62,227,845	-4.2%	64,405,820	3.5%
Physician	9,958,628	12,483,027	25.3%	10,105,414	-19.0%	13,142,670	30.1%	14,258,227	8.5%	14,757,265	3.5%	15,273,770	3.5%
Total Revenue	67,783,549	72,969,086	7.7%	68,858,076	-5.6%	73,485,124	6.7%	79,212,667	7.8%	76,985,111	-2.8%	79,679,590	3.5%
											#DIV/0!		#DIV/0!
Allowances - Hospital	-29,033,018	-46,062,611	58.7%	-38,576,974	-16.3%	-46,484,181	20.5%	(47,111,127)	1.3%	(48,760,017)	3.5%	(50,466,617)	3.5%
Allowances - Physicians	-3,103,245	-5,096,511	64.2%	-3,985,940	-21.8%	-8,167,637	104.9%	(8,081,077)	-1.1%	(8,363,915)	3.5%	(8,656,852)	3.5%
Free Care	0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
Bad Debt	0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
Net Payer Revenue	35,647,286	21,809,964	-38.8%	26,295,162	20.6%	18,833,306	-28.4%	24,020,463	27.5%	19,861,179	-17.3%	20,556,320	3.5%
Fixed Prospective Payment & Reserves	0	10,190,279	#DIV/0!	7,321,568	-28.2%	18,524,229	153.0%	13,395,454	-27.7%	17,477,992	30.5%	18,089,722	
Total Net Payer Revenue & Fixed Prospective Payment	35,647,286	32,000,243	-10.2%	33,616,730	5.1%	37,357,535	11.1%	37,415,917	0.2%	37,339,171	-0.2%	38,646,042	
Reimbursement Rate - Medicare	53%	44%		49%		51%		47%		49%		49%	
Payer Mix - Medicare	35%	30%		33%		33%		32%		31%		31%	
Disproportionate Share Payments	1,742,991	1,278,056	-26.7%	1,194,679	-6.5%	944,549	-20.9%	934,355	-1.1%	934,355	0.0%	934,355	0.0%
Total Payer Revenue													
Hospital	148,377,486	156,110,551	5.2%	155,459,697	-0.4%	160,872,651	3.5%	171,003,194	6.3%	169,907,311	-0.6%	175,854,066	3.5%
Physician	37,482,140	47,077,294	25.6%	42,259,415	-10.2%	49,776,895	17.8%	52,746,750	6.0%	54,592,887	3.5%	56,503,638	3.5%
Total Revenue	185,859,626	203,187,845	9.3%	197,719,112	-2.7%	210,649,546	6.5%	223,749,944	6.2%	224,500,197	0.3%	232,357,704	3.5%
Allowances - Hospital	-45,950,410	-72,114,785	56.9%	-63,012,360	-12.6%	-72,873,254	15.6%	(95,435,065)	31.0%	(98,775,292)	3.5%	(102,232,427)	3.5%
Allowances - Physicians	-18,104,929	-23,758,967	31.2%	-19,123,083	-19.5%	-28,531,464	49.2%	(28,617,112)	0.3%	(29,618,711)	3.5%	(30,655,366)	3.5%
Free Care	-1,112,947	-1,326,726	19.2%	-1,056,665	-20.4%	-1,112,446	5.3%	(1,196,174)	7.5%	(1,238,040)	3.5%	(1,281,371)	3.5%
Bad Debt	-4,642,652	-5,554,532	19.6%	-6,322,818	13.8%	-5,769,549	-8.8%	(7,099,149)	23.0%	(7,347,619)	3.5%	(7,603,809)	3.5%
Disproportionate Share Payments	1,742,991	1,278,056	-26.7%	1,194,679	-6.5%	944,549	-20.9%	934,355	-1.1%	934,355	0.0%	934,355	0.0%
Graduate Medical Education Payments Phys.	0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
Graduate Medical Education Payments-Hosp	0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
Net Payer Revenue	101,110,424	83,359,741	-17.6%	88,925,893	6.7%	81,476,849	-8.4%	92,336,799	13.3%	88,454,890	-4.2%	91,519,086	3.5%
Fixed Prospective Payment & Reserves	0	22,768,482		14,391,875		31,297,131		24,589,780		32,564,119		33,735,588	
Total Net Payer Revenue & Fixed Prospective Payment	101,110,424	106,128,223		103,317,768		112,773,980		116,926,579		121,019,009		125,254,674	
Reimbursement Rate - All Payers	54%	52%		52%		54%		52%		54%		54%	

NORTHWESTERN MEDICAL CENTER

Emergency Department Modernization

PAYER REVENUE REPORT

PROJECT ONLY

	2017 Actual	2018 Budget	% change	2018 Actuals	% change	2019 Budget	% change	2020 Proposed Year 1	% change	2021 Proposed Year 2	% change	2022 Proposed Year 3	% change
Commercial													
Hospital			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Physician			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Total Revenue			#DIV/0!		#DIV/0!		#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
Allowances - Hospital			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Allowances - Physicians			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Free Care							#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Bad Debt							#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Net Payer Revenue			#DIV/0!		#DIV/0!		#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
Fixed Prospective Payment & Reserves													
Total Net Payer Revenue & Fixed Prospective Payment													
Reimbursement Rate - Commercial	#DIV/0!	#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!	
Payer Mix - Commercial	#DIV/0!	#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!	
Medicaid													
Hospital			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Physician			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Total Revenue			#DIV/0!		#DIV/0!		#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
Allowances - Hospital			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Allowances - Physicians			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Free Care							#DIV/0!		#DIV/0!				
Bad Debt							#DIV/0!		#DIV/0!				
Graduate Medical Education Payments-Phys.			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Graduate Medical Education Payments-Hosp			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Net Payer Revenue			#DIV/0!		#DIV/0!		#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
Fixed Prospective Payment & Reserves													
Total Net Payer Revenue & Fixed Prospective Payment													
Reimbursement Rate - Medicaid	#DIV/0!	#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!	
Payer Mix - Medicaid	#DIV/0!	#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!	
Medicare													
Hospital			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Physician			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Total Revenue			#DIV/0!		#DIV/0!		#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
											#DIV/0!		#DIV/0!
Allowances - Hospital			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Allowances - Physicians			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Free Care							#DIV/0!		#DIV/0!				
Bad Debt							#DIV/0!		#DIV/0!				
Net Payer Revenue			#DIV/0!		#DIV/0!		#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
Fixed Prospective Payment & Reserves													
Total Net Payer Revenue & Fixed Prospective Payment													
Reimbursement Rate - Medicare	#DIV/0!	#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!	
Payer Mix - Medicare	#DIV/0!	#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!	
Disproportionate Share Payments			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Total Payer Revenue													
Hospital			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Physician			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Total Revenue			#DIV/0!		#DIV/0!		#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
Allowances - Hospital			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Allowances - Physicians			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Free Care			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Bad Debt			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Disproportionate Share Payments			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Graduate Medical Education Payments-Phys.			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Graduate Medical Education Payments-Hosp			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Net Payer Revenue			#DIV/0!		#DIV/0!		#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
Fixed Prospective Payment & Reserves													
Total Net Payer Revenue & Fixed Prospective Payment													
Reimbursement Rate - All Payers	#DIV/0!	#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!	

NORTHWESTERN MEDICAL CENTER

Emergency Department Modernization

Note: This table requires no "fill-in" as it is populated automatically

PAYER REVENUE REPORT

WITH PROJECT

	2017 Actual	2018 Budget	% change	2018 Actuals	% change	2019 Budget	% change	2020 Proposed Year 1	% change	2021 Proposed Year 2	% change	2022 Proposed Year 3	% change
Commercial													
Hospital	59,344,083	62,469,622	5.3%	64,534,464	3.3%	66,890,057	3.7%	72,231,209	8.0%	74,759,301	3.5%	77,375,877	3.5%
Physician	17,165,501	22,191,031	29.3%	20,746,762	-6.5%	24,372,255	17.5%	26,194,233	7.5%	27,111,031	3.5%	28,059,917	3.5%
Total Revenue	76,509,584	84,660,653	10.7%	85,281,226	0.7%	91,262,312	7.0%	98,425,442	7.8%	101,870,332	3.5%	105,435,794	3.5%
Allowances - Hospital	-16,681,255	-18,351,150	10.0%	-20,472,972	11.6%	-21,830,533	6.6%	-20,594,602	-5.7%	-21,315,413	3.5%	-22,061,452	3.5%
Allowances - Physicians	-7,665,470	-10,710,416	39.7%	-7,973,378	-25.6%	-11,594,306	45.4%	-11,459,581	-1.2%	-11,860,666	3.5%	-12,275,789	3.5%
Free Care	-1,112,947	-1,326,726	19.2%	-1,056,665	-20.4%	-1,112,446	5.3%	-1,196,174	7.5%	-1,238,040	3.5%	-1,281,371	3.5%
Bad Debt	-4,642,652	-5,554,532	19.6%	-6,322,818	13.8%	-5,769,549	-8.8%	-7,099,149	23.0%	-7,347,619	3.5%	-7,603,809	3.5%
Net Payer Revenue	46,407,260	48,717,829	5.0%	49,455,393	1.5%	50,955,478	3.0%	58,075,937	14.0%	60,108,594	3.5%	62,213,372	3.5%
Fixed Prospective Payment & Reserves	0	6,330,798	#DIV/0!	20,810	-99.7%	3,622,038	17305.3%	0	-100.0%	0	#DIV/0!	0	#DIV/0!
Total Net Payer Revenue & Fixed Prospective Payment	46,407,260	55,048,627	18.6%	49,476,203	-10.1%	54,577,516	10.3%	58,075,937	6.4%	60,108,594	3.5%	62,213,372	0
Reimbursement Rate - Commercial	61%	65%		58%		60%		59%		59%		59%	
Payer Mix - Commercial	46%	52%		48%		48%		50%		50%		50%	
Medicaid													
Hospital	31,208,482	33,154,870	6.2%	32,172,571	-3.0%	33,640,140	4.6%	33,817,545	0.5%	32,920,164	-2.7%	34,072,370	3.5%
Physician	10,358,011	12,403,236	19.7%	11,407,239	-8.0%	12,261,970	7.5%	12,294,290	0.3%	12,724,590	3.5%	13,169,951	3.5%
Total Revenue	41,566,493	45,558,106	9.6%	43,579,810	-4.3%	45,902,110	5.3%	46,111,835	0.5%	45,644,754	-1.0%	47,242,320	3.5%
Allowances - Hospital	-16,917,392	-26,052,174	54.0%	-24,435,386	-6.2%	-26,389,073	8.0%	-27,729,336	5.1%	-28,699,862	3.5%	-29,704,357	3.5%
Allowances - Physicians	-7,336,214	-7,952,040	8.4%	-7,163,765	-9.9%	-8,769,521	22.4%	-9,076,454	3.5%	-9,394,130	3.5%	-9,722,925	3.5%
Free Care	0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
Bad Debt	0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
Graduate Medical Education Payments-Phys.	0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
Graduate Medical Education Payments-Hosp	0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
Net Payer Revenue	17,312,887	11,553,892	-33.3%	11,980,659	3.7%	10,743,516	-10.3%	9,306,045	-13.4%	7,550,762	-18.9%	7,815,038	3.5%
Fixed Prospective Payment & Reserves	0	6,247,405		7,049,497		9,150,864		11,194,326		15,086,127		15,645,867	
Total Net Payer Revenue & Fixed Prospective Payment	17,312,887	17,801,297		19,030,156		19,894,380		20,500,371		22,636,889		23,460,905	
Reimbursement Rate - Medicaid	42%	39%		44%		43%		44%		50%		50%	
Payer Mix - Medicaid	17%	17%		18%		18%		18%		19%		19%	
Medicare													
Hospital	57,824,921	60,486,059	4.6%	58,752,662	-2.9%	60,342,454	2.7%	64,954,440	7.6%	62,227,845	-4.2%	64,405,820	3.5%
Physician	9,958,628	12,483,027	25.3%	10,105,414	-19.0%	13,142,670	30.1%	14,258,227	8.5%	14,757,265	3.5%	15,273,770	3.5%
Total Revenue	67,783,549	72,969,086	7.7%	68,858,076	-5.6%	73,485,124	6.7%	79,212,667	7.8%	76,985,111	-2.8%	79,679,590	3.5%
Allowances - Hospital	-29,033,018	-46,062,611	58.7%	-38,576,974	-16.3%	-46,484,181	20.5%	-47,111,127	1.3%	-48,760,017	3.5%	-50,466,617	3.5%
Allowances - Physicians	-3,103,245	-5,096,511	64.2%	-3,985,940	-21.8%	-8,167,637	104.9%	-8,081,077	-1.1%	-8,363,915	3.5%	-8,656,652	3.5%
Free Care	0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
Bad Debt	0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
Net Payer Revenue	35,647,286	21,809,964	-38.8%	26,295,162	20.6%	18,833,306	-28.4%	24,020,463	27.5%	19,861,179	-17.3%	20,556,320	3.5%
Fixed Prospective Payment & Reserves	0	10,190,279		7,321,568		18,524,229		13,395,454		17,477,992		18,089,722	
Total Net Payer Revenue & Fixed Prospective Payment	35,647,286	32,000,243		33,616,730		37,357,535		37,415,917		37,339,171		38,646,042	
Reimbursement Rate - Medicare	53%	44%		49%		51%		47%		49%		49%	
Payer Mix - Medicare	35%	30%		33%		33%		32%		31%		31%	
Disproportionate Share Payments	1,742,991	1,278,056	-26.7%	1,194,679	-6.5%	944,549	-20.9%	934,355	-1.1%	934,355	0.0%	934,355	0.0%
Total Payer Revenue													
Hospital	148,377,486	156,110,551	5.2%	155,459,697	-0.4%	160,872,651	3.5%	171,003,194	6.3%	169,907,311	-0.6%	175,854,066	3.5%
Physician	37,482,140	47,077,294	25.6%	42,259,415	-10.2%	49,776,895	17.8%	52,746,750	6.0%	54,592,887	3.5%	56,503,638	3.5%
Total Revenue	185,859,626	203,187,845	9.3%	197,719,112	-2.7%	210,649,546	6.5%	223,749,944	6.2%	224,500,197	0.3%	232,357,704	3.5%
Allowances - Hospital	-45,950,410	-72,114,785	56.9%	-63,012,360	-12.6%	-72,873,254	15.6%	-95,435,065	31.0%	-98,775,292	3.5%	-102,232,427	3.5%
Allowances - Physicians	-18,104,929	-23,758,967	31.2%	-19,123,083	-19.5%	-28,531,464	49.2%	-28,617,112	0.3%	-29,618,711	3.5%	-30,655,366	3.5%
Free Care	-1,112,947	-1,326,726	19.2%	-1,056,665	-20.4%	-1,112,446	5.3%	-1,196,174	7.5%	-1,238,040	3.5%	-1,281,371	3.5%
Bad Debt	-4,642,652	-5,554,532	19.6%	-6,322,818	13.8%	-5,769,549	-8.8%	-7,099,149	23.0%	-7,347,619	3.5%	-7,603,809	3.5%
Disproportionate Share Payments	1,742,991	1,278,056	-26.7%	1,194,679	-6.5%	944,549	-20.9%	934,355	-1.1%	934,355	0.0%	934,355	0.0%
Graduate Medical Education Payments-Phys.	0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
Graduate Medical Education Payments-Hosp	0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
Net Payer Revenue	101,110,424	83,359,741	-17.6%	88,925,893	6.7%	81,476,849	-8.4%	92,336,799	13.3%	88,454,890	-4.2%	91,519,086	3.5%
Fixed Prospective Payment & Reserves	0	22,768,482		14,391,875		31,297,131		24,589,780		32,564,119		33,735,588	
Total Net Payer Revenue & Fixed Prospective Payment	101,110,424	106,128,223		103,317,768		112,773,980		116,926,579		121,019,009		125,254,674	
Reimbursement Rate - All Payers	54%	41%		45%		39%		41%		39%		39%	

United States of America, Dollars

Emergency Department Modernization

UTILIZATION PROJECTIONS--TABLE 7

WITHOUT PROJECT

	2017 Actual	2018 Budget	% change	2018 Actuals	% change	2019 Budget	% change	Proposed Yr 1 2020	% change	Proposed Yr 2 2021	% change	Proposed Yr 3 2022	% change
Inpatient Utilization													
Acute Beds (Staffed)	70	70	0.0%	70	0.0%	70	0.0%	70	0.0%	70	0.0%	70	0.0%
Acute Admissions	2,557	2,603	1.8%	2,441	-6.2%	2,522	3.3%	2,371	-6.0%	2,371	0.0%	2,371	0.0%
Acute Patient Days	7,793	8,068	3.5%	7,849	-2.7%	8,067	2.8%	7,205	-10.7%	7,205	0.0%	7,205	0.0%
Acute Average Length Of Stay	3.05	3.10	1.7%	3.22	3.7%	3.20	-0.5%	3.04	-5.0%	3.04	0.0%	3.04	0.0%
Outpatient													
All Outpatient Visits	209,431	220,447	5.3%	239,105	8.5%	223,191	-6.7%	211,769	-5.1%	211,769	0.0%	211,769	0.0%
Physician Office Visits	106,222	136,082	28.1%	127,675	-6.2%	121,911	-4.5%	118,392	-2.9%	118,392	0.0%	118,392	0.0%
Ancillary													
All Operating Room Procedure	2,880	2,836	-1.5%	2,974	4.9%	2,978	0.1%	2,546	-14.5%	2,546	0.0%	2,546	0.0%
All Operating Room Cases	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Emergency Room Visits	24,772	26,903	8.6%	24,536	-8.8%	26,920	9.7%	24,000	-10.8%	24,000	0.0%	24,000	0.0%
Cat Scan Procedures	7,338	7,124	-2.9%	8,095	13.6%	7,535	-6.9%	8,337	10.6%	8,337	0.0%	8,337	0.0%
Magnetic Resonance Image Exams	2,604	2,572	-1.2%	2,617	1.7%	2,599	-0.7%	2,670	2.7%	2,670	0.0%	2,670	0.0%
Nuclear Medicine Procedures	798	806	1.0%	994	23.3%	790	-20.5%	1,128	42.8%	1,128	0.0%	1,128	0.0%
Radiology - Diagnostic Procedures	31,442	32,004	1.8%	29,964	-6.4%	31,807	6.2%	37,442	17.7%	37,442	0.0%	37,442	0.0%
Laboratory Tests	369,741	315,444	-14.7%	371,072	17.6%	370,786	-0.1%	369,928	-0.2%	369,928	0.0%	369,928	0.0%
			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Adjusted Statistics													
Adjusted Admissions	11,786	12,605	6.9%	12,089	-4.1%	12,192	0.9%	11,608	-4.8%	11,608	0.0%	11,608	0.0%
Adjusted Days	35,922	39,069	8.8%	38,872	-0.5%	39,000	0.3%	35,274	-9.6%	35,274	0.0%	35,274	0.0%

United States of America, Dollars

Emergency Department Modernization

UTILIZATION PROJECTIONS–TABLE 7

PROJECT ONLY

	2017 Actual	2018 Budget	% change	2018 Actuals	% change	2019 Budget	% change	Proposed Yr 1 2020	% change	Proposed Yr 2 2021	% change	Proposed Yr 3 2022	% change
Inpatient Utilization													
Acute Beds (Staffed)			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Acute Admissions			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Acute Patient Days			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Acute Average Length Of Stay			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Outpatient													
All Outpatient Visits			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Physician Office Visits			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Ancillary													
All Operating Room Procedure			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
All Operating Room Cases			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Emergency Room Visits			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Cat Scan Procedures			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Magnetic Resonance Image Exams			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Nuclear Medicine Procedures			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Radiology - Diagnostic Procedures			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Laboratory Tests			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Adjusted Statistics													
Adjusted Admissions			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Adjusted Days			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!

United States of America, Dollars

Emergency Department Modernization

UTILIZATION PROJECTIONS--TABLE 7

Note: This table requires no "fill-in" as it is populated automatically

WITH PROJECT

	2017 Actual	2018 Budget	% change	2018 Actuals	% change	2019 Budget	% change	Proposed Yr 1 2020	% change	Proposed Yr 2 2021	% change	Proposed Yr 3 2022	% change
Inpatient Utilization													
Acute Beds (Staffed)	70	70	0.0%	70	0.0%	70	0.0%	70	0.0%	70	0.0%	70	0.0%
Acute Admissions	2,557	2,603	1.8%	2,441	-6.2%	2,522	3.3%	2,371	-6.0%	2,371	0.0%	2,371	0.0%
Acute Patient Days	7,793	8,068	3.5%	7,849	-2.7%	8,067	2.8%	7,205	-10.7%	7,205	0.0%	7,205	0.0%
Acute Average Length Of Stay	3	3	1.7%	3	3.7%	3	-0.5%	3	-5.0%	3	0.0%	3	0.0%
Outpatient													
All Outpatient Visits	209,431	220,447	5.3%	239,105	8.5%	223,191	-6.7%	211,769	-5.1%	211,769	0.0%	211,769	0.0%
Physician Office Visits	106,222	136,082	28.1%	127,675	-6.2%	121,911	-4.5%	118,392	-2.9%	118,392	0.0%	118,392	0.0%
Ancillary													
All Operating Room Procedure	2,880	2,836	-1.5%	2,974	4.9%	2,978	0.1%	2,546	-14.5%	2,546	0.0%	2,546	0.0%
All Operating Room Cases	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
Emergency Room Visits	24,772	26,903	8.6%	24,536	-8.8%	26,920	9.7%	24,000	-10.8%	24,000	0.0%	24,000	0.0%
Cat Scan Procedures	7,338	7,124	-2.9%	8,095	13.6%	7,535	-6.9%	8,337	10.6%	8,337	0.0%	8,337	0.0%
Magnetic Resonance Image Exams	2,604	2,572	-1.2%	2,617	1.7%	2,599	-0.7%	2,670	2.7%	2,670	0.0%	2,670	0.0%
Nuclear Medicine Procedures	798	806	1.0%	994	23.3%	790	-20.5%	1,128	42.8%	1,128	0.0%	1,128	0.0%
Radiology - Diagnostic Procedures	31,442	32,004	1.8%	29,964	-6.4%	31,807	6.2%	37,442	17.7%	37,442	0.0%	37,442	0.0%
Laboratory Tests	369,741	315,444	-14.7%	371,072	17.6%	370,786	-0.1%	369,928	-0.2%	369,928	0.0%	369,928	0.0%
	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
Adjusted Statistics													
Adjusted Admissions	11,786	12,605	6.9%	12,089	-4.1%	12,192	0.9%	11,608	-4.8%	11,608	0.0%	11,608	0.0%
Adjusted Days	35,922	39,069	8.8%	38,872	-0.5%	39,000	0.3%	35,274	-9.6%	35,274	0.0%	35,274	0.0%

NORTHWESTERN MEDICAL CENTER

Emergency Department Modernization

STAFFING REPORT - TABLE 8

WITHOUT PROJECT

	2017 Actual	2018 Budget	% change	2018 Actuals	% change	2019 Budget	% change	Proposed Year 1 2020	% change	Proposed Year 2 2021	% change	Proposed Year 3 2022	% change
PHYSICIAN FTEs	35.3	39.7	12.5%	36.9	-7.1%	41.3	12.1%	42.3	2.2%	42.3	0.1%	41.3	-2.4%
TRAVELERS	1.0	1.3	27.6%	2.5	97.6%	1.1	-55.1%	2.2	100.0%	2.2	-0.9%	1.1	-50.0%
Residents & Fellows	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
MLPs	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
Non-MD FTEs	627.1	626.4	-0.1%	636.3	1.6%	646.7	1.6%	657.1	1.6%	650.0	-1.1%	650.0	0.0%
TOTAL NON-MD FTEs	627.1	626.4	-0.1%	636.3	1.6%	646.7	1.6%	657.1	1.6%	650.0	-1.1%	650.0	0.0%

Note: Mid-Level Providers and Residents are now included in Non-MD Employees, prior to 2013 Actual they were included in Physician FTEs

STAFFING REPORT - TABLE 8

PROJECT ONLY

	2017 Actual	2018 Budget	% change	2018 Actuals	% change	2019 Budget	% change	Proposed Year 1 2020	% change	Proposed Year 2 2021	% change	Proposed Year 3 2022	% change
PHYSICIAN FTEs			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
TRAVELERS			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Residents & Fellows			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
MLPs			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
Non-MD FTEs			#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
TOTAL NON-MD FTEs	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!

Note: Mid-Level Providers and Residents are now included in Non-MD Employees, prior to 2013 Actual they were included in Physician FTEs

Note: This table requires no "fill-in" as it is populated automatically

STAFFING REPORT - TABLE 8

WITH PROJECT

	2017 Actual	2018 Budget	% change	2018 Actuals	% change	2019 Budget	% change	Proposed Year 1 2020	% change	Proposed Year 2 2021	% change	Proposed Year 3 2022	% change
PHYSICIAN FTEs	35.3	39.7	12.5%	36.9	-7.1%	41.3	12.1%	42.3	2.2%	42.3	0.1%	41.3	-2.4%
TRAVELERS	1.0	1.3	27.6%	2.5	97.6%	1.1	-55.1%	2.2	100.0%	2.2	-0.9%	1.1	-50.0%
Residents & Fellows	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
MLPs	-	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!	-	#DIV/0!
Non-MD FTEs	627.1	626.4	-0.1%	636.3	1.6%	646.7	1.6%	657.1	1.6%	650.0	-1.1%	650.0	0.0%
TOTAL NON-MD FTEs	627.1	626.4	-0.1%	636.3	1.6%	646.7	1.6%	657.1	1.6%	650.0	-1.1%	650.0	0.0%

Note: Mid-Level Providers and Residents are now included in Non-MD Employees, prior to 2013 Actual they were included in Physician FTEs

Northwestern Medical Center										
Key Indicators										
	Ingenix/Optimum Almanac of Hospital Indicators (2016 Data)									
	Northeast CAH	**Other Non-Profit**	**100 - 199 Beds**	**All Teaching**	**Greater than 400 Beds**	**2016 Actuals**	**2017 Actuals**	**2018 Budget**	**2018 Actuals**	**2019 Budget**
Liquidity										
Days Cash on Hand						351	331	257	300	307
Operating Margin %						3.4%	-1.2%	0.7%	-3.4%	2.3%
Debt										
Long Term Debt to Capitalization						22.3%	20.6%	20.8%	19.8%	18.9%
Age of Plant						10.6	11.1	9.6	11.3	10.1
Capital Expenditures to Depreciation	N/A	N/A	N/A	N/A	N/A	203%	112%	170%	173%	149%
Utilization										
All Outpatient Visits	N/A	N/A	N/A	N/A	N/A	187,904	209,431	220,447	239,105	223,191
Physician Office Visits	N/A	N/A	N/A	N/A	N/A	93,823	106,222	136,082	127,675	121,911
Clinic Visits	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0
Adjusted Admissions	N/A	N/A	N/A	N/A	N/A	11,121	11,203	12,010	11,572	11,676
Acute Admissions	N/A	N/A	N/A	N/A	N/A	2,581	2,557	2,603	2,441	2,522
Total Admissions	N/A	N/A	N/A	N/A	N/A	2,979	2,964	2,990	2,799	2,904
Cost										
Capital Cost % of Total Expense						5.0%	4.9%	6.5%	5.1%	5.9%
Cost per Adjusted Admission	N/A					$9,201	$9,612	$9,256	$9,814	$9,956
Cost Per Adjusted Admissions Increase							4.5%	-3.7%	6.0%	1.4%
Employed										
Non-MD FTEs	N/A	N/A	N/A	N/A	N/A	592	627	626	636	647
Physician FTEs	N/A	N/A	N/A	N/A	N/A	32	35	40	37	41
Productivity										
FTEs per 100 Adj Discharges	N/A	N/A	N/A	N/A	N/A	5.3	5.6	5.2	5.5	5.5
Overhead Expense w/ fringe, as a % of Total Operating Exp	N/A	N/A	N/A	N/A	N/A	25.9%	25.5%	23.6%	24.9%	23.5%
Bad Debt % of Gross Revenue	N/A	N/A	N/A	N/A	N/A	1.6%	2.5%	2.7%	3.2%	2.7%
Free Care % of Gross Revenue	N/A	N/A	N/A	N/A	N/A	0.7%	0.6%	0.7%	0.5%	0.5%

Verification Under Oath

STATE OF VERMONT
GREEN MOUNTAIN CARE BOARD

In re: Northwestern Medical Center's Emergency Department Modernization Project	))))	Docket No. GMCB-003-19con

Verification Under Oath to file with Certificate of Need Application, correspondence and additional information subsequent to filing an Application.

Jill Berry Bowen, being duly sworn, states on oath as follows:

1. My name is Jill Berry Bowen. I am the Chief Executive Officer of Northwestern Medical Center. I have reviewed Northwestern Medical Center's Certificate of Need Application for our Emergency Department Modernization project (Docket No. GMCB-003-19con).

2. Based on my personal knowledge and after diligent inquiry, I attest that the information contained in Northwestern Medical Center's Certificate of Need Application for our Emergency Department Modernization project (Docket No. GMCB-003-19con) is true, accurate and complete, does not contain any untrue statement of a material fact, and does not omit to state a material fact.

3. My personal knowledge of the truth, accuracy and completeness of the information contained in the Northwestern Medical Center's Certificate of Need Application for our Emergency Department Modernization project (Docket No. GMCB-003-19con) is based upon either my actual knowledge of the subject information or upon information reasonably believed by me to be true and reliable and provided to me by the individuals identified below in paragraph 4. Each of these individuals has also certified that the information they have provided is true, accurate and complete, does not contain any untrue statement of a material fact and does not omit to state a material fact.

4. The following individuals have provided information or documents to me in connection with Northwestern Medical Center's Certificate of Need Application for our Emergency Department Modernization project (Docket No. GMCB-003-19con) and each individual has certified, based either upon his or her actual knowledge of the subject information or, where specifically identified in such certification, based on information reasonably believed by the individual to be reliable, that the information or documents provided are true, accurate and complete, do not contain any untrue statement of a material fact, and do not omit to state a material fact:

   - John Minadeo, MD, Emergency Department Medical Director
   - JoAnn Manahan, RN, Emergency Department Nurse Manager
   - Deanna Orfanidis, RN, Chief Nursing Officer
   - Tristan Glanville, Interim Chief Financial Officer

- Stephanie Breault, Director of Finance
- Devin Bachelder, Manager of Decision Support & Budget
- Tyson Moulton, Director of Facilities
- Jonathan Billings, Vice President of Community Relations & RiseVT

5. In the event that the information contained in the Northwestern Medical Center's Certificate of Need Application for our Emergency Department Modernization project (Docket No. GMCB-003-19con) becomes untrue, inaccurate or incomplete in any material respect, I acknowledge my obligation to notify the Green Mountain Care Board and to supplement the Northwestern Medical Center's Certificate of Need Application for our Emergency Department Modernization project (Docket No. GMCB-003-19con) as soon as I know, or reasonably should know, that the information or document has become untrue, inaccurate or incomplete in any material respect.

[signature]

On June 27, 2019, Jill Berry Bowen appeared before me and swore to the truth, accuracy and completeness of the foregoing.

Notary public

My commission expires Jan 31, 2021
[seal]

Project Budget Summary

Project Name: Emergency Department Renovations

Construction Costs			Remarks
Account	**Building and Site Construction**		
	Base Building Cost	4,854,210	
	CM Fee	138,345	2.85%
	Anticipated added scope		
	General Conditions		
	Owner's Protective Insurance		
	Builder's Risk Insurance	59,911	
	Liability Insurance		
	Performance Bond	50,525	
	Approved Change Orders		
	DPS Permit	40,852	
	Estimating Contingency	506,847	
	Subtotal:	**$5,650,789**	
	Construction Contingency	847,618	15%
	Owners Contingency for Change Orders		
	Subtotal:	**$6,498,407**	
	Cost cover by Building Owner		
	Total Construction Costs w/ Contingency:	**$6,498,407**	

Other Project Costs			
Account	**Professional Fees:**		
	Schematic Design	126,200	
	Design Development	140,700	
	Construction Documents	87,400	
	Design Contingincy		
	Bidding/Construction Administration	12,900	
	Schematic Design Estimate		
	Schematic Design Contingency		
	Contractor Pre-construction Services Fee	16,000	
	Construction Documents Fee		
	Reimbursables preconstruction		
	Reimbursables thru Construction	10,000	
	Permitting Support	14,900	
	Construction Administration	81,300	
	Professional Fees Contingincy	73,410	
	Subtotal:	**$562,810**	
	Owner Managed Construction		
	Subtotal:	**$0**	
	Physical Plant Services		
	Shops		
	Locksmith		
	Material Management		
	Control Point Cost		
	Custodial		
	Internal MEP support		
	Subtotal:	**$0**	
	Hazardous Materials Abatement		
	Study Cost	5,000	
	Disposal		
	Consultant		
	Abatement Contractor		
	Hood certification		
	Subtotal:	**$5,000**	
	Furniture, Fixtures & Equipment		
	Furniture and Equipment	267,692	
	Interior Signage	4,000	
	Exterior Signage	10,000	
	Window Treatment	2,000	
	Artwork	3,000	
	Ceiling Lift	24,000	
	FF&E Contingency	46,604	
	Subtotal:	**$357,295**	
	Communications/Technology/CatCard		
	Phone/Data Wiring & Equipment	63,000	
	Demo/Install existing Nurse Call	12,000	
	Classroom/Conference Room Technology		
	Card Access Equipment	0	
	Cardiac Monitor (install only)		
	Communications/Technology Contingency	12,001	
	Subtotal:	**$87,001**	
	Moving Expenses		

Project Budget Summary

Project Name: Emergency Department Renovations

Construction Costs		Remarks
Relocation Expenses	0	
Subtotal:	$0	
Administrative Costs		
Salaries		
Benefits		
Commissioning Services	0	
Testing and Inspection	0	
Consultant Construction Fees/Project Management		
LEED Registration + Certification Fees		
Blueprints etc.		
Photography		
Postage		
Photocopy		
Freight & Shipping		
Other Services (Parking)		
Supplies & Materials		
Job Trailer Phone & Fax for CM		
Permit Consultant		
Electric - Utility Expense		
Heat - Utility Expense		
Water - Utility Expense		
Subtotal:	$0	
Permit Costs		
Municipal Development Review	140	
Municipal Application Fee	300	
Municipal Impact Fees		
State Building Permit Fees	0	Carried in construction costs
Act 250 Permit Fees	43,214	
Local Building permit	32,492	
Occupancy Permit Fee		
State Water Supply & Waste Water Permit		
CON review fees	7,500	
Permitting Fee Contingency	12,547	
Subtotal:	$96,193	
Subtotal Other Project Costs:	$1,108,300	
Other Project Cost Contingency		
Total Other Project Costs:	$1,108,300	
Total Project Cost:	**$7,606,707**	
CON Fee	$9,508	
Grand Total:	**$7,616,215**	

E F Wall and Assoc., Inc
131 South Main Street
Barre , VT 05641

Northwestern Medical Center
ED Renovation and Behavioral Observation Study
Schematic Design Budget

08 April 2019

ITEM #	ITEM	PRICING (4/08/19)
01 GENERAL CONDITIONS		**$344,358**
01-1	General Conditions	$182,434
01-2	Testing Services	
01-3	Temp Heating / Cooling	
01-4	Temp Signage	$1,000
01-5	Temp Lighting	$1,500
01-6	Temp Partitions	$10,000
01-7	Protection of Work In Place	$8,500
01-8	Dumpsters	$15,000
01-9	Project Sign	$1,100
01-10	Final Cleaning	$4,200
01-11	Neg Air / Infection Control	$10,000
01-12	ADD for FBC Controls	$15,000
01-13	Added General Conditions	$52,124
01-14	Winter Conditions	$40,000
01-15	Permitting	
01-16	Dumpsters for added masonry demo	$3,500
02 SITEWORK / DEMOLITION		**$252,300**
02-1	Saw Conc and Remove	$31,500
02-2	Hand Excavation	$16,200
02-3	Demo Walls	$33,500
02-4	Demo Ceilings	$7,500
02-5	Demo Flooring	$10,000
02-6	Demo Doors and Windows	$4,500
02-7	Demo Millwork	$12,500
02-8	Demo Hospital Equipment	$6,000
02-9	Demo Masonry	
02-10	Misc Cut and Patch	$10,000
02-11	Sitework/Excavation/Backfill	$25,000
02-12	Additional sitework, excavation, & backfill for addition	$25,000
02-13	Relocation of underground services	$60,000
02-14	Additional Roof Penetration Demo for conduit	$600
02-15	Demo Existing Masonry Exterior Wall	$10,000

Exhibit 2

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Northwestern Medical Center
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Schematic Design Budget

08 April 2019

03 CONCRETE		**$107,300**
03-1	Concrete Slab Infill	$17,800
03-2	Concrete @ Addition	$35,000
03-3	Concrete for addition 3/27/19	$54,500
04 MASONRY		**$62,160**
04-1	Mechanical Room Masonry	
04-2	Modify Existing Openings	
04-3	Masonry for addition	$62,160

Exhibit 2

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Schematic Design Budget

08 April 2019

05 METALS		**$118,120**
05-1	Steel Support for Exam Lights	$48,000
05-2	Misc Lintels	$3,000
05-3	New Steel for addition	$54,880
05-4	Steel Support for Exam Lights added exam rooms	$12,240
06 WOOD & PLASTICS		**$49,198**
06-1	Finish Carpentry	$6,002
06-2	Misc Blocking	$27,500
06-3	Roof Nailers & Furring	$5,946
06-4	Finish Carpentry	$1,500
06-5	Added Interior Blocking	$2,500
06-6	Additional Roof Blocking	$5,750
07 MOISTURE & THERMAL		**$179,400**
07-1	Slab On Grade Vapor Barrier	$4,000
07-2	Moisture Mitigation at New Slabs	$5,000
07-3	Sound Attenuation Insulation	
07-4	Caulking	$5,000
07-5	Spray Fireproofing	$12,000
07-6	Roofing new and flashing penetrations	$42,500
07-7	Damproofing Foundation	$1,200
07-8	Foundation/Slab Insulation	$3,200
07-9	Exterior Wall Air Barrier/Insulation System	$15,000
07-10	FC Siding 5" TTW	
07-11	Exterior Trims/Flashings	
07-12	Slab On Grade Vapor Barrier per added sf	$2,500
07-13	Roofing penetrations for panel feeders to mechanical space	$1,500
07-14	Additional Roofing for added SF	$48,000
07-15	Spray Fireproofing for added SF	$20,000
07-16	Damproofing Foundation per added sf	$1,500
07-17	Exterior Wall Air Barrier/Insulation System per added sf	$18,000

Exhibit 2

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Northwestern Medical Center
ED Renovation and Behavioral Observation Study
Schematic Design Budget

08 April 2019

08 DOORS & WINDOWS		**$298,090**
08-1	Doors, Frames, and Hardware	$69,860
08-2	Door Operators	$21,000
08-3	Aluminum Sliders @ Exams	$80,000
08-4	Aluminum Slider @ Exterior Entrance Vestibule	$7,500
08-5	Aluminum Slider @ Interior Entrance Vestibule	$7,500
08-6	Aluminum Triple Slider @ Vestibule	$10,000
08-7	Behavioral Exam Cabinet Enclosures	
08-8	Aluminum Windows	$13,200
08-9	Transaction Windows	$10,000
08-10	Misc. Glazing	$5,000
08-11	Skylights in BH rooms	
08-12	Exterior Windows @ Waiting room 3 ea.	$7,500
08-13	Swing Room Head Wall Doors	$16,000
08-14	Added Exterior Windows @ New Addition	$7,500
08-15	Added DFH	$12,500
08-16	Added Exam Sliders	$24,480
08-17	Misc. Glazing per layout changes and added sf	$2,400
08-18	Door Operator added at top of suite exit	$3,650
09 FINISHES		**$508,907**
09-1	Wall Assemblies	$184,371
09-2	Interior Drywall System	
09-3	Drywall Taping	$37,296
09-6	Floor Prep	$12,312
09-7	Flooring	$70,263
09-8	Tile Walls and Floors	$40,000
09-9	Rubber Wall Base	$5,000
09-10	Epoxy Flooring	$7,500
09-11	Acoustical Ceilings	$40,250
09-12	Painting	$56,950
09-13	Wall Assemblies per added sf	$21,675
09-14	Drywall Taping per added sf	$4,500
09-15	Flooring per added SF	$10,800
09-16	Floor Prep per added SF	$1,200
09-17	Acoustical Ceilings per added sf	$5,290
09-18	Painting per added sf	$11,500

Exhibit 2

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Schematic Design Budget

08 April 2019

10 SPECIALTIES		**$145,600**
10-1	Wall Protection, Corner Guards, Chair and Hand Rail	$40,000
10-2	Lockers	$13,340
10-3	Toilet Accessories	$10,880
10-4	Cubicle Track	$10,200
10-5	Fire Extinguishers and Cabinets	$1,180
10-6	Signage	$10,000
10-7	Canopy at Drop Off	$60,000
10-8	Toilet Accessories per added sf	
11 EQUIPMENT		**$8,500**
11-1	Install Owner's Furnished Equipment	$7,500
11-2	Install Owner's Furnished Equipment per additional sf	$1,000
12 FURNISHINGS		**$143,665**
12-1	Solid Surface Counters and Sinks	$127,165
12-2	Casework, millwork per added sf and layout changes	$16,500
13 SPECIAL CONSTRUCTION		**$225,000**
13-01	Temp Fit Up of ICU Space	$225,000
14 CONVEYING SYSTEMS		
15 MECHANICAL SYSTEMS		**$1,817,938**
15-1	Mechanical Systems	$564,898
15-2	Plumbing	$216,091
15-3	Controls	$104,500
15-4	Med Gas	$106,212
15-5	Sprinkler	$38,900
15-6	Add for FBC Controls	$84,829
15-7	Mechanical Room Relocation	$550,000
15-8	Added sf	$112,644
15-9	New AHU	$26,000
15-10	Contingency of Mech/Plmbing Scope other than 15-7	$13,864
16 ELECTRICAL SYSTEMS		**$527,900**
16-1	Electrical System	$338,900

Exhibit 2

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08 April 2019

16-2	Fire Alarm	$7,000
16-3	New Electrical Panels in Mechanical Room w/ Feeders	$125,000
16-4	Electrical System per added sf	$57,000
	SUBTOTAL "A"	**$4,788,436**
	CM FEE (2.85 %)	**$136,470**
	BUILDERS RISK INSURANCE 1.2%	**$59,099**
	PERFORMANCE & PAYMENT BONDS 1%	**$49,840**
	SUBTOTAL "B"	**$5,033,845**
	PRECONSTRUCTION COSTS	**$16,000**
	SUBTOTAL "C"	**$5,049,845**
	STATE FIRE SAFETY PERMIT FEE (0.8%)	**$40,399**
	CONTRACTOR'S CONTINGENCY 10%	**$509,024**
	2% INFLATION FROM ORIGINAL	**$65,774**
	TOTAL COST	**$5,665,043**

Exhibit 2

Emergency Department
Construction/Expansion Cost Comparisons
June 2019

	Addition SF	Renovation SF	Total SF	% renovation	% addition	Total Cost of Project w/ inflation (3.5% annually)	Cost/SF	
BMH	2,437	6,758	9,195	73%	27%	$6,720,531	**$730.89**	*Includes soft cost, contingency and financing, *CON submitted in 2011
RRMC	2,072	7,136	9,208	77%	23%	$7,145,604	**$776.02**	*Includes soft cost, contingency and financing, *CON submitted in 2014
NMC	2,392	9,267	11,659	79%	21%	$7,578,217	**$649.99**	*Includes soft cost, contingency and financing,

Note: Total Cost of Project includes all construction and other project cost.

Exhibit 3

MECHANICAL SYSTEM

BASIS OF DESIGN

PART 1 GENERAL

1.01 SUMMARY

A. **This section includes general system basis of design requirements for mechanical-HVAC and plumbing installations. This descriptive narrative is <u>For Schematic Design Purposes</u> only and is not to be construed as a final design for construction.**

1. All design, fabrication, and installation work shall comply with but not limited to the following codes, standards, and guidelines:

   a. Vermont Fire and Building Safety Code (2012).

   b. International Building Code (2012).

   c. International Plumbing Code (2012) as amended by the 2015 Vermont Plumbing Rules.

   d. Vermont Act 193, Vermont's Lead in Consumer Products Law.

   e. Vermont Commercial Building Energy Standards (2015 or "Later Edition").

   f. NFPA 1 and 101 (per State of Vermont latest accepted edition).

   g. NFPA 54, 58, 90A, 90B, 96, and 211 (per State of Vermont latest accepted edition).

   h. NFPA 70 National Electrical Code (per State of Vermont latest accepted edition).

   i. ASHRAE Guidelines (latest edition - as applicable).

   j. SMACNA Duct Construction Standards (latest edition).

2. Heating and Cooling Design Standards:

   a. Outdoor Design Temperature (Heating): -20°F.

   b. Indoor Design Temperature (Heating): 70°F.

   c. Outdoor Design Temperature (Cooling): 90°F dry bulb, 71°F wet bulb.

   d. Indoor Design Temperature (Cooling): 75°F.

1.02 HEATING, VENTILATION, AND AIR CONDITIONING SYSTEMS

A. <u>Rooftop Air Handling Unit 1</u>
A new Trane package Air Handling Unit (AHU) to be installed above the proposed mechanical room to serve the Emergency Room (E.R.) expansion and the existing, renovated space. The unit will be served by the hospitals central heating and cooling plant through steam, hot water and chilled water.

The new AHU will be a 10,000 CFM unit with the following features:

-Dual Return Fan Array
-MERV 8 Pre-filters
-Hot Water or Steam Preheat Coil

-Plant Steam based humidification
-Chilled Water Coil
-Hot Water Reheat Coil
-Dual Supply Fan Array
-MERV 8 supply filter bank
-MERV 15 supply final filter bank.

The AHU will be capable of discharging 70F heating air in the winter, and 48°F cooling air in the winter. The lower cooling setpoint has been chosen for dehumidification purposes.

Outdoor air shall be set to 25% of total airflow to start and be variable in the DDC control system.

Individual zone control will be provided by Variable Air Volume (VAV) units. The VAV units will be Trane VCWF VAV units with integral reheat coils for final zone tempering.

Proposed zoning and airflows for each VAV are as follows:

Rooftop Air Handling Unit 1 VAV Table						
Room Name	**VAV Box**	**Total Air Flow (CFM)**	**Pressure**	**Min OA Changes**	**Min TA Changes**	**All Room Air To Outdoors**
Exam 6	VAV 1	120	NR	2	6	No
Exam 7	VAV 1	120	NR	2	6	No
Exam 8	VAV 2	120	NR	2	6	No
Exam 9	VAV 2	120	NR	2	6	No
Exam 15	VAV 5	135	NR	2	6	No
Exam 16	VAV 6	135	NR	2	6	No
Mental Health 1	VAV 7	135	NR	2	6	No
Mental Health 2	VAV 8	135	NR	2	6	No
Mental Health Support/Common	VAV 9	600	NR	NA	NA	No
Exam 12	VAV 11	120	NR	2	6	No
Exam 13	VAV 11	120	NR	2	6	No
Exam 14	VAV 11	120	NR	2	6	No
Exam 10	VAV 12	120	NR	2	6	No
Exam 11	VAV 12	120	NR	2	6	No
Exam 3	VAV 14	120	NR	2	6	No

Exam 4	VAV 14	120	NR	2	6	No
Exam 5	VAV 14	120	NR	2	6	No
All Room and Bathroom 1	VAV 15	300	Neg	2	12	Yes
All Room and Bathroom 2	VAV 16	300	Neg	2	12	Yes
All Ante Room	VAV 16	200	Neg	NR	10	Yes
Triage	VAV 17	250	Neg	2	12	Yes
Clean Supply	VAV 18	200	Pos	2	4	No
Meds	VAV 18	100	Pos	2	4	No
Equipment Storage	VAV 18	100	Pos	2	4	No
Waiting Room	VAV 19	1200	Neg	2	12	Yes
Soiled Utility	VAV 20	200	Neg	2	10	Yes
Cardiac Room	VAV 21	700	Pos	3	15	No
Trauma Room	VAV 22	1000	Pos	3	15	No
Room Name	**VAV Box**	**Total Air Flow (CFM)**	**Pressure**	**OA CFM / Person**	**OA CFM /FT²**	**All Room Air To Outdoors**
On Call Suite	VAV4	200	NR	5	.06	No
Locker Room	VAV 13	230	Neg	NA	.5	Yes
Break Room	VAV 13	340	NR	5	.06	No
Team Station	VAV3	240	NR	5	.06	No
Team Station	VAV 10	450	NR	5	.06	No
Team Station	VAV23	400	NR	5	.06	No
Registration and Consultation	VAV 24	400	NR	5	.06	No
Workstation	VAV 25	300	NR	5	.06	No

Table 1

B. Ductwork. All supply, return, outside air, and exhaust ductwork shall be G90 galvanized sheet metal fabricated to SMACNA standards, 2" Pressure Class / Seal Class 'A' standards. All supply and outside air ductwork is fully insulated.

Supply, Return, Exhaust and Outdoor Air mains shall be sized for a pressure drop of .08" w.c. or less per Locking quadrant volume dampers to be provided at each branch for balancing purposes.

New ductwork shall be insulated per the 2015 Vermont CBEC.

C. Air Inlets and Outlets. Provide ceiling-mounted aluminum supply air diffusers and exhaust air grilles for distribution of ventilation air. Supply air diffusers shall be Price AMD style and return air grilles shall be Price 630 style.

D. Exhaust Fans. Contractor shall provide new hard duct main and branch ductwork to new exhaust grilles.

Stack Fan: Provide Greenheck FJI series curb mount with integrated stack. See Table 3.

Provide stack fans with terminations provided a minimum of 10' above the roof deck shall be provided for all hazardous/dirty exhaust.

Upblast Fan: Provide Greenheck CUE curb mount fan. See Table 3.

Exhaust fans shall be provided with VFD's for balancing purposes.

Airflows for each exhaust fan are as follows:

Exhaust Fans				
Tag	**Rooms Served**	**Exhaust Air Flow (CFM)**	**Type**	**Duct Routing**
EF-1	All Room 1. All Room 2. All Waiting Room	1200	Rooftop Stack	Through Roof
EF-2	Soiled Utility	250	Rooftop Stack	Through Roof
EF-3	Waiting Room	1200	Rooftop Stack	Through Roof
EF-4	Bathrooms, locker room housekeeping closets	500	Rooftop Upblast	Through Roof
EF-5	Mechanical Room	1500	Rooftop Upblast	Through Roof

Table 2

E. Vestibule Heating System

Vestibules shall be served by hot water cabinet unit heaters. Cabinet unit heaters shall be Trane Force-Flo cabinet unit heaters, either ceiling mounted or wall mounted.

F. Utility Room Heating System

The mechanical room shall be served by hot water unit heaters. Unit heaters shall be Modine unit heaters, either ceiling mounted or wall mounted.

G. HVAC Control System.

An expanded Direct Digital Control (DDC) system will serve the systems within the renovated and expanded spaces. System shall be capable of network integration into the existing Northwestern Medical Center (NMC) campus network system utilizing the same communication protocol as existing.

The existing pneumatic control system serving the E.R. and the Family Birthing Center will be eliminated. The Family Birthing center controls will be upgraded to DDC as part of this project.

AHU Control: The air handling unit shall control to a user adjustable discharge air temperature with independent settings and scalability for outdoor temperature. The Air Handling Unit shall have full economizer capabilities and a dehumidification sequence based on the humidity levels of the return air stream. The Air handling unit will maintain a set discharge pressure and modify it's speed based to slow down to accommodate setbacks in unoccupied rooms.

Reheat zone: Reheat control sequence shall modulate reheat coil control valve to maintain space temperature set-point (adjustable). Duct coil discharge air temperature shall be zone neutral (72f adjustable) whenever not in heating mode. Duct coil discharge air temperature shall be increased to 100f when system is in heating mode. Provide wall mounted ss blank plate sensor with override button for each zone.

VAV box control In heating mode box shall remain in minimum position until heating coil valve is 100% open. Vav damper shall then stroke to a maximum of 100% open to satisfy calls for heating. In cooling mode the box shall remain in minimum position and stroke to a maximum of 100% open to satisfy calls for cooling.

Non-occupied room control Occupied/non-occupied shall be by DDC system programmable occupancy sensor with local override. During unoccupied times, controller shall reduce VAV airflow to minimum airflow position (user adjustable) and reset temperature to minimum setpoint (user adjustable).

Cabinet & Unit Heater Control: Unit heaters will operate based on a local temperature sensor and user adjustable heating setpoint.

Test & Balance. Provide the services of an independent Test and Balance Contractor for air-side system balance. Provide written reports to the Architect, Engineer of Record, and Owner's representative for review.

Mechanical Room. Existing steam to hot water heat exchanger system will be upgraded with all new equipment in the new mechanical room to provide local hot water production and distribution.

Ambulance Bay. The existing Heat Recovery Unit (HRU) shall be removed and replaced with a new unit with expanded capabilities. The new unit shall feature bypass dampers for economizer cooling, and auxiliary heating and cooling coils. Existing ductwork will be re-used.

1.03 PLUMBING SYSTEMS

A. Water Service Entrance

A new water service entrance shall be located in the new mechanical room. Domestic water service takeoff shall be provided with a Watts RPZ double check assembly located in the mechanical room. Separate water services shall be provided for Domestic and Fire Protection.

B. Domestic Water Distribution

The existing hot water and cold water system for the E.R. shall be re-used and expanded to accommodate the new layout and small expansion. New branch piping shall be installed as required to accommodate the new E.R. Layout. All piping shall be insulated per the 2015 Vermont CBES and supported per International Plumbing Code Table 308.5.

C. Sanitary Waste and Vent Risers

The existing waste and vent system for the E.R. shall be re-used and expanded to accommodate the new layout and small expansion. New branch piping shall be installed as required to accommodate the new E.R. Layout. New waste and vent piping shall be cast iron, standard weight with stainless steel connectors.

D. Plumbing Fixtures and Equipment

Provide the following plumbing fixtures and equipment. Refer to architectural drawings for locations of plumbing fixtures. Provide local stops, no burst connection hoses, branch line isolation valves and all means materials and methods to provide a complete serviceable installation.

Exam Room Sink: Corian integral sink and counter. Provide with Chicago 895-317ABCP faucet, gooseneck spout, wristblade handles, and drain grid strainer. Color: Chrome.

Lavatory Sink: Corian integral sink and counter. Sloan ebf-85 sensor activated faucet with Sloan Mix-70-A below deck thermostatic mixing valve. Provide grid strainer, no-burst flexible hose connections, and Truebro lavguard 2 piping installation kit.

Water Closet: American Standard Madera right-height ADA compliant elongated bowl #3461.001, w/Sloan 1.6gpf hand free flushometer w/ Church 7650T seat.

Soiled Utility Service Sink: American Standard clinic service sink #9512.999.020 with optional rim guards #7832512.075. American Standard bedpan cleaner assembly #7880.124. Zurn exposed service sink flush valve (6.5 gpf) #z6017. Jay R Smith model 0915 wall carrier.

Soiled Utility Countertop Sink: Elkay lrad221960-2 drop in, countertop, 18 gauge stainless steel sink w/ drain grid strainer. Chicago 895-317ABCP faucet, gooseneck spout, 4" centers, wrist blade handles.

Wall Mount Handwash Sink: American Standard Lucerne 0356.921 wall mount with Zurn z1231 wall carriers, ADA compliant lavatory, single hole. Provide with Chicago 895-317ABCP faucet, gooseneck spout, wristblade handles, and drain grid strainer. Color: Chrome.

Mop Sink: Zurn z-1996-24 PVC w/ Zurn Z841M1 faucet. Provide wall blocking to fully support faucet and mop hanger brace.

Floor Drain: Zurn z450 with trap primer. Provide trap primer connected to local water supply.

Domestic Hot Water

E. Medical Gas System

The existing Medical Gas system for the E.R. to be re-used and expanded to accommodate the new layout and expansion. New branch piping shall be installed as required to accommodate the new E.R. Layout. The medical gas system includes Oxygen, Medical Air, and Vacuum. The system to be modified as follows.

Relocate the existing medical air compressor and tank manifold from the existing mechanical room to the proposed mechanical room and re-install in an enclosure separate from any other motors; connect the existing medical air piping.

Relocate the existing Medical Vacuum pump to the annex mechanical room; connect to the Vacuum main in that room, with new isolation valves.

Provide branch piping to service Medical Air, Oxygen, and Vacuum ports as shown in the table below:

Medical Gas			
Room Name	**Oxygen**	**Medical Air**	**Vacuum**
Exam 6	1	1	1
Exam 7	1	1	1
Exam 8	1	1	1
Exam 9	1	1	1
Exam 15	1	1	1
Exam 16	1	1	1
Mental Health 1	1	1	1
Mental Health 2	1	1	1
Exam 12	1	1	1
Exam 13	1	1	1
Exam 14	1	1	1
Exam 10	1	1	1
Exam 11	1	1	1
Exam 3	1	1	1
Exam 4	1	1	1
Exam 5	1	1	1
All Room and Bathroom 1	1	1	1

All Room and Bathroom 2	1	1	1
Triage	1		1
Cardiac Room	2	1	3
Trauma Room	2	1	3

Table 3

Medical gas ports shall be Powerex DISS type as provided by Allied Medical Gas of Agawam Mass.

1.04 SPRINKLER SYSTEM

Contractor shall carry the services of a sprinkler installer licensed in the State of Vermont for design and installation of a new sprinkler fire protection system for the space.

All sprinkler systems shall be approved type and style as approved by the local Fire Department, and State of Vermont Division of Fire Safety.

Sprinkler designer/installer shall provide drawings stamped and signed by an engineer licensed in the State of Vermont for submission to labor and industry and review by the owner during the shop drawing phase.

1.05 REGULATORY REQUIREMENTS

A. Contractor shall be responsible for submitting all required permits. Permit fees shall be paid by the owner.

1.06 QUALITY ASSURANCE

A. All equipment shall be installed true and level. Precision gauges and levels shall be used in setting all equipment.

B. Equipment shall be erected in a neat and workmanlike manner on the foundations and supports required, unless otherwise directed by the Owner during installation.

C. The equipment shall be brought to a proper level by wedges and shims. After the machine has been leveled and aligned, the nuts on the anchor bolts shall be tightened to bond the machine firmly into place against the wedges or shims.

D. Furnish, install and protect all necessary guides, bearing plates, anchor and attachment bolts, and all other appurtenances required for the installation of equipment. These shall be of ample size and strength for the purpose intended.

E. Anchor bolts shall be furnished and built into the concrete foundations.

F. All equipment shall be installed in such a manner as to provide access for routine maintenance, including lubrication.

G. Structural steel supports and miscellaneous steel required for supporting and/or hanging equipment and piping furnished under this Division shall be provided and installed. Contractor shall provide structural engineering and analysis as required to support proposed equipment.

1.07 GUARANTEE

A. Guarantee all materials, equipment, and workmanship installed under this Section of the Specifications against any defects which may occur during (1) one year period starting from day of final acceptance by the Owner representative. Guarantee all other work and damage as a result of such defects. Coordinate with the general contractor for requirements of guarantee.

B. Replace any material and equipment prior to final acceptance, which is corroded or otherwise damaged through the failure to properly operate and maintain the installation during construction or testing.

C. Keep the work in repair and replace any defective materials, equipment or workmanship upon notice from the Architect or Owner's representative for a period of (1) one year from date of acceptance. Materials or equipment requiring excessive service during the first year of operation shall be considered defective.

D. Post on the equipment and give to the Owner, a list of phone numbers to call for servicing during emergency and guarantee periods.

END OF SECTION

COMPLIANCE CHECKLIST

EMERGENCY SERVICES
GUIDELINES for DESIGN and CONSTRUCTION of HOSPITALS and OUTPATIENT FACILITIES
2014 Edition

Instructions:

1. All requirement lines must be completed according to the following instructions and included in the plan submissions for Self-Certification Process or Part II of the Abbreviated Review Process.
2. This checklist must be completed by the project architect or engineer based on the design actually reflected in the plans at the time of completion of the checklist.
3. Each requirement line (___) of this Checklist must be completed exclusively with one of the following symbols, unless otherwise directed in the checklist. If a functional space is not affected by a renovation project, the symbol "E" may be indicated on the requirement line (___) before the name of the functional space (associated requirements on indented lines below that name, or associated MEP requirements do not have to be completed in this case). If more than one functional space serves a given required function (e.g. patient room or exam room), that clarification should be provided in the Project Narrative, and the requirement lines are understood to only address the functional spaces that are involved in the project.

X = Requirement is met, for new space, for renovated space, or for existing direct support space for an expanded service.

___ = Check box under section titles or individual requirements lines for optional services or functions that are not included in the project area.

E = Requirement relative to an existing suite or area that has been *licensed* for its designated function, is *not affected* by the construction project and *does not pertain to a required direct support space* for the specific service affected by the project.

W = Waiver requested for specific section of the Regulations or FGI Guidelines, where hardship in meeting requirement can be demonstrated (a Physical Plant Waiver Form must be completed for each waiver request).

4. All room functions marked with "X" must be shown on the plans with the same name labels as in this checklist.
5. Mechanical, electrical & plumbing requirements are only partially mentioned in this checklist. The relevant section of the FGI Guidelines must be used for project compliance with all MEP requirements and for waiver references.
6. Oxygen, vacuum, medical air, and waste anesthesia gas disposal outlets (if required) are identified respectively by the abbreviations "OX", "VAC", "MA", & "WAGD".
7. Requirements referenced with "FI" result from formal interpretations from the FGI Interpretations Task Group.
8. The location requirements including asterisks (*) refer to the definitions of the Glossary in the beginning section of the FGI Guidelines.

Facility Name:

Northwestern Medical Center

Facility Address:

133 Fairfield St, St Albans City, VT 05478

Satellite Name: (if applicable)

Building/Floor Location:

1st Floor, Main Hospital

Satellite Address: (if applicable)

Project Description:

Emergency Department Addition & Renovation

	Architectural Requirements	Building Systems Requirements	
2.2-3.1	**EMERGENCY SERVICES**		
2.2-3.1.3.2	**ENTRANCE**		
2.1-6.2.1	E Vehicular drop-off & pedestrian entrance		
	E Min. one drop-off entrance reachable from grade level		
(1)	E Signed route from public roads that directs ambulance traffic to ED ambulance entrance		
	E Signed route from public roads that directs vehicle traffic to public entrance		
(2)	E Paved emergency access to permit discharge of patients from automobiles & ambulances		
(3)	E ED entrance clearly marked		
(4)	___ Raised platform/dock used for ambulance discharge ☒check if not included in project ___ ramp or elevator/lift to grade level for pedestrian & wheelchair access		
(5)	E Emergency vehicle entry cover/canopy provides shelter for both patient & emergency medical crew during transfer between emergency vehicle & building		
(6)	E Emergency bays sized so they are compatible with horizontal & vertical vehicle clearances of EMS providers		
(7)	E ED ambulance entrances min. 6'-0" clear width to accommodate bariatric stretchers, mobile patient lift devices & attendants		
2.2-3.1.3.3	**RECEPTION & TRIAGE AREAS**		
(1)	X Reception or triage areas located to provide means for observation of main entrance to ED & public waiting area		
(2)	X Public access points to treatment area under direct observation of reception & triage areas		
(3)	X Triage area	Ventilation:	
(a)	X connection for telephones	X Min. 12 air changes/hour	Table 7.1
(b)	X provisions for patient privacy	X Negative pressure	
(c)	X handwashing station in each triage room & 1 handwashing station for every 4 triage bays or cubicles	X Exhaust **or** ___Recirculation through HEPA filters	
(d)	X hand sanitation dispenser for each triage bay or cubicle	Power:	Table 2.1-1
(e)	X access to panic button for security emergencies	X Min. 6 receptacles convenient to head of stretcher	
		X At least 50% on emergency power	
		Nurse Call System:	Table 2.1-2
		X Patient station	
		X Emergency staff assistance station	
		X Code call station	
		Medical Gases:	2.1-4
		X 1 OX, 1 VAC per station	

	Architectural Requirements	Building Systems Requirements	
2.2-3.1.3.4(1)	_X_ Public waiting area	Ventilation:	
(b)	_X_ access to drinking water	_X_ Min. 12 air changes/hour	Table 7-1
(c)	_X_ telephones	_X_ Negative pressure	
		_X_ Exhaust **or** ___ Recirculation through HEPA filters	
(a)	_X_ toilet facilities	Ventilation: _X_ Min. 10 air changes per hour _X_ Exhaust	Table 7.1
2.2-3.1.3.5	_X_ Communications center		
(1)	_X_ directly accessible* to nurse station or part of nurse station & documentation area		
(2)	_X_ radio, telephone & intercommunication systems		
(3)	_X_ EMS base station ☐ check if not included in project ___ designed to reduce noise, distractions & interruptions during radio transmissions		
2.2-3.1.3.6	**TREATMENT ROOM OR AREA**		
(1)			
(b)	_X_ Examination/treatment rooms used for pelvic exams allow for foot of exam table to face away from door		
(2)	_X_ Single-bed treatment room		
(b)	_X_ space for medical equipment _X_ view panel designed for patient visual privacy adjacent* to and/or in door		
	Space Requirements:		
2.1-3.2.2.1(1)	New Construction: _X_ min. clear floor area 120 sf with min. clear dimension of 10'-0" **or** Renovations: ___ min. clear floor area 100 sf	Ventilation: _X_ Min. 6 air changes per hour	Table 7.1
(2)		Power:	
(a)	_X_ room size permits min. clearance of 3'-0" at each side & at foot of exam table	_X_ Min. 8 receptacles in room	Table 2.1-1
(b)	_X_ room arrangement permits placement of exam table, recliner, or chair at an angle, closer to one wall than another, or against wall to accommodate type of patient being served	_X_ Min. 4 receptacles convenient to head of stretcher _X_ Include receptacles on emergency power	NFPA 99
2.1-3.2.2.2	Room Features:	Nurse Call System:	
(1)	_X_ examination light	_X_ Patient station	Table 2.1-4
(2)	_X_ storage for supplies	_X_ Emergency staff assistance station	
(3)	_X_ accommodations for written or electronic documentation	_X_ Code call station	
(4)	_X_ space for visitor's chair		
(5)	_X_ handwashing station		
		Medical Gases: _X_ 1 OX, 1 VAC, 1 MA	

	Architectural Requirements	Building Systems Requirements	
2.2-3.1.3.6(3)	___ Multiple-bed treatment rooms ☒check if not included in project		
2.1-3.2.3.1	Space Requirements:	Ventilation:	
(1)	___ patient bays or cubicles with min. clear floor area 80 sf per patient care station	___Min. 6 air changes/hour	Table 7.1
		Power:	
(2)		___Min. 4 receptacles convenient to head of each stretcher	Table 2.1-1
(a)	___ min. clearance 5'-0" between sides of adjacent patient beds	___Include receptacles on emergency power for each stretcher	NFPA 99
(b)	___ min. clearance 4'-0" between sides of patient beds & adjacent walls		
2.1-3.2.2.2	Room Features:	Nurse Call System:	
(1)	___ examination light	___Patient station	Table 2.1-2
(2)	___ storage for supplies	___Emergency staff assistance station	
(3)	___ accommodations for written or electronic documentation	___Code call station	
(4)	___ space for visitor's chair	Medical Gases:	
(5)	___ handwashing station ___ for each 4 patient care stations	___1 OX, 1 VAC, 1 MA for each patient	Table 2.1-4
2.2-3.1.3.6(3)			
(a)	___ adjoining bays separated by curtains		
(4)	Pediatric Facilities: ☒check if not included in project		
(b)	___ pediatric treatment rooms	Ventilation:	
	___ located adjacent* to family waiting area & toilet room	___Min. 6 air changes/hour	Table 7.1
	___ min. clear floor area 120 sf	Power:	
		___Min. 4 receptacles convenient to head of each stretcher	Table 2.1-1
		___Include receptacles on emergency power for each stretcher	NFPA 99
		Nurse Call System:	
		___Patient station	Table 2.1-2
		___Emergency staff assistance station	
		___Code call station	
		Medical Gases:	
		___1 OX, 1 VAC, 1 MA for each patient	Table 2.1-4
(c)	___ pediatric trauma rooms		
(d)	___ handwashing station	Ventilation:	
	___ vacuum, oxygen & air outlets	___ Positive pressure to all adjoining spaces	4/7.4.1
	___ physiological monitoring equipment	___ Airflow unidirectional, downwards & average velocity of diffusers 25-35 CFM/ft^2	
	___ space for code cart adjacent* to treatment rooms	___ Diffusers concentrated to provide airflow pattern over patient & surgical team	
	___ PACS image-viewing station		
	___ min. clear floor area 250 sf for one patient at one time	___ Area of primary supply diffuser array extends min. 12" beyond footprint of surgical table on each side	
	or		
	___ min. clear floor area 200 sf per patient for more than one patient at one time	___ No more than 30% of primary supply diffuser array area used for ceiling mounted equipment	

	Architectural Requirements	Building Systems Requirements	
		___ At least 2 low sidewall return or exhaust grilles on opposite corners or as far apart as possible, with bottom of these grilles installed approximately 8" above floor	4/6.1.1
		___ Space ventilation & pressure relationship requirements of Table 7.1 be maintained in event of loss of normal electrical power	
		___Min. 15 air changes/hour	
		___No recirculating room units	Table 7.1
		Power:	
		___16 receptacles convenient to head of each stretcher	Table 2.1-2
		___ Include receptacles on emergency power	NFPA 99
		Nurse Call System:	
		___Emergency staff assistance station	Table 2.1-2
		___Code call station	
		Medical Gases:	
		___ 2 OX, 3 VAC, 1 MA per patient position	Table 2.1-4
(e)	Discrete Pediatric Emergency Service: (complete the relevant section above for each listed space) ☒check if not included in project		
	___ triage, registration & discharge areas		
	___ waiting area		
	___ playroom or play area		
	___ pediatric treatment rooms		
	___ at least 1 airborne infection isolation room		
	___ at least 1 treatment room for pelvic examinations		
	___ documentation area		
	___ storage for supplies & medication		
2.2-3.1.3.6			
(5)	[*] E Treatment room for bariatric patients	Ventilation:	
(b)	X min. clear floor area 200 sf	X Min. 6 air changes per hour	Table 7.1
	X min. clear dimension 12'-0"	Power:	
(d)	X min. clearance 5'-0" on both sides & at foot of treatment table or bed	X Min. 8 receptacles in room	Table 2.1-1
		X Min. 4 receptacles convenient to head of stretcher	
(e)	X accommodations for patient lift & transport either by an overhead lifting system or by portable lifting assist	X Include receptacles on emergency power	NFPA 99
(f)	X all plumbing fixtures, grab bars & casework floor-mounted and/or designed to accommodate maximum patient weight	Nurse Call System:	
		X Patient station	Table 2.1-4
		X Emergency staff assistance station	
		X Code call station	

[*] *Existing Trauma Room is utilized to accommodate Patients of Size*

	Architectural Requirements	Building Systems Requirements	
2.2-2.16.9.1	Door Opening to Bariatric Treatment Room: __X__ min. clear width 54 inches __X__ clear height 83.5 inches		
2.2-3.1.3.6			
(6)	__E__ Trauma/resuscitation room		
(a)	__E__ single-bed trauma/resuscitation room ☐check if not included in project		
(b)	___ min. clear floor area 250 sf ___ min. clearance 5'-0" around all sides of stretcher ___ multiple-patient trauma/resuscitation room ☐check if not included in project ___ min. clear floor area for each patient care station defined by privacy curtains (bay) 200 sf ___ min. clearance 5'-0" around all sides of stretcher	Ventilation: ___ Positive pressure to all adjoining spaces ___ Airflow unidirectional, downwards & average velocity of diffusers 25-35 CFM/ft^2 ___ Diffusers concentrated to provide airflow pattern over patient & surgical team ___ Area of primary supply diffuser array extends min. 12" beyond footprint of surgical table on each side ___ No more than 30% of primary supply diffuser array area used for ceiling mounted equipment ___ At least 2 low sidewall return or exhaust grilles on opposite corners or as far apart as possible, with bottom of these grilles installed approximately 8" above floor	4/7.4.1
(c)	Equipment: ___ cabinets ___ emergency supply shelves ___ PACS & at least one X-ray film illuminator ___ examination lights ___ documentation area ___ patient physiologic monitoring equipment ___ storage for immediate access to personal protective equipment		
		___ Space ventilation & pressure relationship requirements of Table 7.1 be maintained in event of loss of normal electrical power	4/6.1.1
2.1-7.2.3.1(6)	___ monolithic floors with integral coved 6" high wall base	___Min. 15 air changes/hour ___No recirculating room units	Table 7.1
2.1-7.2.3.3(4)	Ceiling in Trauma Rooms:	Power:	Table 2.1-2
(a)	___ monolithic construction ___ no cracks or perforations	___ 16 receptacles convenient to head of each stretcher ___ Include receptacles on emergency power	NFPA 99
(b)	___ ceiling finishes scrubbable		
(c)	___ gasketed access openings	Nurse Call System: ___Emergency staff assistance station ___Code call station	Table 2.1-2
(d)	___ hand scrub facilities for trauma rooms		
2.1-3.3.2	___ hand scrub station consisting of 2 scrub positions permitted to serve 2 trauma rooms if located next to the entrance of each trauma room	Medical Gases: ___ 2 OX, 3 VAC, 1 MA per patient position	Table 2.1-4
2.1-3.3.3	___ placement of scrub station does not restrict minimum required corridor width		

	Architectural Requirements	Building Systems Requirements	
2.2-3.1.3.6(6) (e)	___ doorways leading from ambulance entrance to trauma/ resuscitation room min. clear width 72 inches & min. height 83.5 inches		
(7)	**E** Access to radiology & laboratory services		
2.2-3.1.3.6			
(8)	**E** Decontamination room	Ventilation:	
(a)	___ outside entry door located no less than 10'-0" from closest other entrance ___ internal door opens into ED corridor ___ internal door swings into room & lockable against ingress from corridor	___Min. 12 air changes per hour ___negative pressure ___exhaust ___no recirculating room units	Table 7.1
(b)	___ min. clear floor area 80 sf		
(c)	Special Architectural Details: ___ all smooth, nonporous, scrubbable, non absorptive, non perforated surfaces ___ floor self-coving to height of 6 inches		
(d)	Special Plumbing Requirements: ___ room equipped with 2 hand-held shower heads with temperature controls ___ floor drain ___ dedicated holding tank ___ fixtures acid resistant ___ portable or hard-piped oxygen ___ portable suction		
2.2-3.1.3.6			
(10)	___ Fast-track area ☒check if not included in project		
(a)	___ examination/treatment areas ___ min. clear floor area 100 sf ___ handwashing stations ___ examination lights	Ventilation: ___Min. 6 air changes/hour Power: ___Min. 8 receptacles in room	Table 7.1 Table 2.1-3
(c)	___ at least one examination/treatment room designated for pelvic examinations	___Min. 4 receptacles convenient to head of stretcher Nurse Call System: ___Patient station ___Emergency staff assistance station ___Code call station Medical Gases: ___1 OX, 1 VAC, 1 MA for each patient	Table 2.1-4 Table 2.1-4

	Architectural Requirements	Building Systems Requirements	
(b)	___ separate procedure room ☒check if not included in project		
	___ min. clear floor area 120 sf ___ handwashing stations ___ vacuum, oxygen & medical air outlets ___ examination lights	Ventilation: ___Min. 6 air changes/hour Power: ___Min. 8 receptacles in room ___Min. 4 receptacles convenient to head of stretcher Nurse Call System: ___Patient station ___Emergency staff assistance station ___Code call station Medical Gases: ___1 OX, 1 VAC, 1 MA for each patient	Table 7.1 Table 2.1-3 Table 2.1-4 Table 2.1-4
(d)	___ space for physician/nurse work station		
(e)	___ storage areas for supplies & medication		
2.2-3.1.3.7	___ patient toilet room ___ min. 1 patient toilet room per 6 exam/treatment rooms or fewer & for each fraction thereof ___ handwashing station	Ventilation: ___ Min. 10 air changes per hour ___ Exhaust	Table 7.1
2.2-3.1.4	**SPECIAL PATIENT CARE AREAS**		
2.2-3.1.4.2	_X_ Airborne infection isolation (AII) room		
(3)	_X_ AII room visible from nurse station		
		Ventilation: _X_ 12 air changes per hour _X_ Exhaust _X_ Negative pressure _X_ No recirculating room units	Table 7.1
2.1-7.2.3.1(6)	_X_ monolithic floors with integral coved 6" high wall base	_X_ Space ventilation & pressure relationship maintained in event of loss of normal electrical power	4/6.1.1
2.1-2.4.2.4(1)		_X_ Exhaust air from AII rooms discharged directly to outdoors	4/7.2.1
(b)	_X_ self-closing devices on all room exit doors		
(c)	_X_ doors has edge seals	_X_ Exhaust grilles or registers located directly above patient bed on ceiling or on wall near head of bed	
		_X_ Permanent device monitoring differential air pressure between AII room & corridor	

	Architectural Requirements	Building Systems Requirements	
2.2-3.1.4.3	_X_ Secure holding room ☐ check if not included in project		
(1)	_X_ location of secure holding room facilitates staff observation & monitoring of patients	Ventilation: _X_ Min. 6 air changes per hour	Table 7.1
(2)	_X_ min. clear floor area 60 sf _X_ min. wall length 7'-0" _X_ max. wall length 11'-0"		
(3)	_X_ room designed to prevent injury to patients		
(a)	_X_ all finishes, light fixtures, vents & diffusers & sprinklers tamper resistant		
(b)	_X_ no electrical outlets, medical gas outlets, or similar devices		
(c)	_X_ no sharp corners, edges, or protrusions _X_ walls free of objects or accessories		
(d)	_X_ room door swings out _X_ door hardware on exterior side only _X_ min. door width 44 inches		
(e)	_X_ small impact-resistant view panel or window in door for discreet staff observation of patient		
2.2-3.1.6	**SUPPORT AREAS FOR EMERGENCY DEPARTMENT**		
2.2-3.1.6.1	_X_ Administrative center or nurse station		
(2)	_X_ space for medication storage	Nurse Call System:	
(3)	___ decentralized nurse stations near clusters of treatment rooms ☒ check if not included in project	_X_ master station	Table 2.1-2
2.1-2.6.1.1			
(1)	_X_ space for counters		
(2)	_X_ at least one handwashing station located in, next to, or directly accessible*		
2.2-3.1.6.2	_X_ Security station _X_ located near emergency entrances _X_ located near triage/reception area _X_ means of observing public waiting areas & ED entrances, including pedestrian & ambulance entrances		
2.2-3.1.6.8	_X_ Provisions for disposal of solid & liquid waste _X_ clinical sink with bedpan washer in soiled workroom		
2.2-3.1.6.9	_X_ Clean supply room		
2.1-2.6.9.2	_X_ room used only for storage & holding as part of system for distribution of clean & sterile supplies	Ventilation: _X_ 4 air changes per hour _X_ Positive pressure	Table 7.1
2.1-2.6.10	_X_ Soiled workroom or soiled holding room		

	Architectural Requirements	Building Systems Requirements	
2.1-2.6.10.1	_X_ soiled workroom room	Ventilation:	
(1)	_X_ handwashing station	_X_ 10 air changes per hour	Table 7.1
(2)	_X_ flushing-rim clinical service sink with bedpan washer	_X_ Exhaust _X_ Negative pressure	
(3)	_X_ work counter	Nurse Call System:	
(4)	_X_ space for separate covered containers	_X_ Duty station	
	or		
2.1-2.6.10.2	___ soiled holding room	Ventilation:	
(1)		___ 10 air changes per hour	Table 7.1
(a)	___ handwashing station or hand sanitation station	___ Exhaust ___ Negative pressure	
(b)	___ space for separate covered containers		
2.2-3.1.6.11			
(1)	_X_ Wheelchair & stretcher storage for arriving patients _X_ located out of traffic with access to emergency entrances		
2.1-2.6.11.4	_X_ Emergency equipment storage		
(1)	_X_ at least one emergency equipment storage location		
(2)	_X_ under visual observation of staff		
(3)	_X_ storage locations in corridors do not infringe on min. required corridor width		
2.2-3.1.6.12	_X_ Environmental services room _X_ directly accessible* from ED		
2.1-2.6.12.2		Ventilation:	
(1)	_X_ service sink or floor-mounted mop sink	_X_ 10 air changes per hour	Table 7.1
(2)	_X_ provisions for storage of supplies & housekeeping equipment	_X_ Exhaust	
(3)	_X_ handwashing station or hand sanitation station		
2.2-3.1.7	**SUPPORT AREAS FOR EMERGENCY DEPARTMENT STAFF**		
2.2-3.1.7.1	_X_ Staff lounge, lockers & toilets _X_ immediately accessible* to ED		
2.2-3.1.7.2	_X_ Staff storage facilities		
2.1-2.7.3.1	_X_ securable closets or cabinet compartments for personal articles of staff ___ located in or near nurse station		
2.1-2.7.3.2	_X_ coat storage ☐check if not included in project: ___ storage of coats in closets or cabinets on each floor or in central staff locker area		

Architectural Details & MEP Requirements

2.1-7.2.2 ARCHITECTURAL DETAILS

2.1-7.2.2.1 NFPA 101
- _X_ Aisles, corridors & ramps required for exit access in a hospital not less than 8'-0" in clear & unobstructed width

or

- ___ Code Review Sheet establishing compliance with NFPA 101 has been submitted

- _X_ Aisles, corridors & ramps in adjunct areas not intended for the housing, treatment, or use of inpatients not less than 44" in clear width

2.1-7.2.2.2 CEILING HEIGHT:

(1)
- _X_ Min. ceiling height 7'-6" in corridors & normally unoccupied spaces

(2)
- _E_ Min. height 7'-0" in trauma rooms from floor to lowest protruding element of equipment or fixture in stowed position

(4)
- _X_ Min. height 7'-6" above floor of suspended tracks, rails & pipes located in traffic path for patients in beds and/or on stretchers
- _X_ Min. ceiling height 7'-10" in other areas

2.1-7.2.2.3 DOORS & DOOR HARDWARE:

(1)

(a)
- _X_ Doors between corridors, rooms, or spaces subject to occupancy swing type or sliding doors

(b)
- _X_ Sliding doors
  - ☐ check if not included in project
  - _X_ manual or automatic sliding doors comply with NFPA 101
    - ___ code review sheet attached
    - _X_ no floor tracks

(2)

(a)
- _X_ Min. 45.5" clear door width for diagnostic/treatment areas
- _X_ Min. 83.5" clear door height for diagnostic/treatment areas

(b)
- _X_ Swinging doors for personnel use in addition to sliding doors
  - ☐ check if not included in project

(3)
- _X_ min. clear width 34.5"
- _X_ Doors do not swing into corridors (except doors to non-occupiable spaces & doors with emergency breakaway hardware)

(4)

(b)
- _X_ Lever hardware

(5)
- _X_ Doors for patient toilet facilities

(a)
- ___ 2 doors separated by horizontal distance equal to one-half length of max. diagonal room dimension

or

- ___ door that swings outward

or

- _X_ door equipped with emergency rescue hardware

or

(b)
- ___ sliding door

- _X_ toilet room door opening in public area or corridor maintains visual privacy

2.1-7.2.2.7 GLAZING MATERIALS:

(4)
- _X_ Glazing within 18" of floor
  - ☐ check if not included in project
  - _X_ safety glass, wire glass or plastic break-resistant material

2.1-7.2.2.8 HANDWASHING STATIONS:

(c)
- _X_ Handwashing stations in patient care areas located to be visible & unobstructed

(3)
- _X_ anchoring suitable for vertical or horizontal force of 250 lbs.

(4) Handwashing Station Countertops:
- ☐ check if not included in project

(a)
- _X_ porcelain, stainless steel or solid surface materials

(b)
- ___ plastic laminate countertops
  - ☒ check if not included in project
  - _X_ substrate marine-grade plywood (or equivalent) with impervious seal

(5)
- _X_ Designed to prevent storage beneath sink

(6)
- _X_ provisions for drying hands

(a)
- _X_ hand-drying device does not require hands to contact dispenser

(d)

(7)
- _X_ directly accessible* to sinks
- _X_ Liquid or foam soap dispensers

2.1-7.2.2.9 GRAB BARS:

(2)
- _X_ Standard grab bars anchored to sustain concentrated load of 250 lbs.

2.2-2.16.2.7
- ___ Bariatric grab bars

(2)
- ___ anchored to sustain concentrated load of 1000 lbs.

2.1-7.2.2.9(3)
- ___ length of rear wall grab bars 44"

2.1-7.2.2.10 HANDRAILS:
(1) X Handrails installed on both sides of patient use corridors
(3) X Rail ends return to wall or floor
(4) X Smooth non-textured surface free of rough edges
(5) X Eased edges & corners
(6) X Finishes cleanable

2.1-7.2.2.12 NOISE CONTROL:
(1) X Recreation rooms, exercise rooms, equipment rooms & similar spaces with potential impact noises are not located directly over trauma rooms
(2) X Partitions, floors & ceiling construction in patient areas conform to Table 1.2-6

2.1-7.2.3 SURFACES

2.1-7.2.3.1 FLOORING & WALL BASES:
(1) X Selected flooring surfaces cleanable & wear-resistant for location
(2) X Smooth transitions between different flooring materials
(3) X Flooring surfaces, including those on stairways, stable, firm & slip-resistant
(b) ___ Carpet
☒check if not included in project
___ provides stable & firm surface
(4) X Floors & wall bases of soiled workrooms, toilet rooms & other wet cleaned areas are not physically affected by cleaning solutions

2.1-7.2.3.2 WALLS & WALL PROTECTION:
(1)
(a) X Washable wall finishes
(b) X Wall finishes near plumbing fixtures smooth, scrubbable & water-resistant
(2) X Monolithic wall surfaces in areas routinely subjected to wet spray or splatter
(5) X No sharp, protruding corners
(6) X Wall protection devices & corner guards durable & scrubbable

2.1-7.2.3.3 CEILINGS:
(1) Ceilings in areas occupied by patients:
(a) X cleanable with routine housekeeping equipment
(b) X acoustic & lay-in ceilings
☐check if not included in project
X do not create ledges or crevices

2.1-8.2 **HEATING, VENTILATION, & AIR-CONDITIONING (HVAC) SYSTEMS**

4/6.3.1 Outdoor Air Intakes:
4/6.3.1.1 X Located min. 25 feet from cooling towers & all exhaust & vent discharges
X Bottom of air intake is at least 6'-0" above grade
4/6.3.1.2 Roof Mounted Air Intakes:
☐check if not included in project
X bottom min. 3'-0" above roof level
4/6.3.2 Exhaust Discharges for AII Room, Decontamination Room & Waiting Area:
X Ductwork under negative pressure (except in mechanical room)
X Discharge in vertical direction at least 10'-0" above roof level
X Located not less than 10'-0" horizontally from air intakes & operable windows/doors
4/6.4 Filtration:
X Filter banks conform to Table 6.4
4/6.4.1 X Filter Bank #1 placed upstream of heating & cooling coils
4/6.4.2 X Filter Bank No. 2 installed downstream of cooling coils & supply fan
4/6.7 Air Distribution Systems:
4/6.7.1 X Ducted return or exhaust systems in spaces listed in Table 7.1 with required pressure relationships
X Ducted return or exhaust systems in inpatient care areas
4/6.7.3 Smoke & Fire barriers:
X HVAC zones coordinated with compartmentation to minimize ductwork penetrations of fire & smoke barriers
4/6.8 Energy Recovery Systems:
4/6.8.2 X Exhaust systems serving potentially contaminated rooms are not used for energy recovery
4/6.9 Duct Lining:
X No duct lining in ductwork located downstream of Filter Bank #2
4/7. Space Ventilation:
4/7.1 X Spaces ventilated per Table 7.1
X Air movement from clean areas to less clean areas
X Min. number of total air changes indicated either supplied for positive pressure rooms or exhausted for negative pressure rooms

___ Recirculating room HVAC units
[X] check if not included in project
___ each unit serves only single space
___ min. MERV 6 filter for airflow downstream of cooling coils

2.1-8.2.1.1 Acoustic Considerations:
(5) X Equipment location or acoustic provisions limit noise associated with outdoor mechanical equipment to 65 dBA at building façade

2.1-8.2.1.2 Ventilation & Space-Conditioning:
(1) X All rooms & areas used for patient care have provisions for ventilation
(2) X Mechanical ventilation provided for all rooms & areas in facility in accordance with Table 7.1 of Part 4

2.1-8.2.3.1 Exhaust Systems:
(1) (a) ___ Room routinely used for administering inhalation anesthesia & inhalation analgesia
[X] check if not included in project
(b) ___ anesthesia scavenging system with air supply at or near ceiling & exhaust air inlets near floor level
or
(c) ___ gas-collecting system arranged so as not to disturb patients respiratory systems
___ gases from scavenging system exhausted directly to outside

2.1-8.3 ELECTRICAL SYSTEMS

2.1-8.3.2 ELECTRICAL DISTRIBUTION & TRANSMISSION

2.1-8.3.2.1 Switchboards Locations:
(1)
(a) X Located in areas separate from piping & plumbing equipment
(b) X Not located in rooms they support
X Accessible to authorized persons only
(c) X Located in dry, ventilated space free of corrosive gases or flammable material

2.1-8.3.2.2 Panelboards:
(1) X Panelboards serving life safety branch emergency circuits only serve same floor, floor above & floor below
(2) X Panelboards serving critical branch emerg. circuits only serve same floor
(3) X New panelboards not located in exit enclosures

2.1-8.3.3.1 **EMERGENCY ELECTRICAL SERVICE**
(1) X Emergency power per NFPA 99, NFPA 101 & NFPA 110

2.1-8.3.4 **LIGHTING**
(3) Exam/Treatment/Trauma Rooms:
X portable or fixed exam light

2.1-8.3.5 **ELECTRICAL EQUIPMENT**
2.1-8.3.5.2 ___ Required handw. station or scrub sink tied to building electrical service
[X] check if not included in project
___ connected to essential electrical system

2.1-8.3.6 **ELECTRICAL RECEPTACLES**
2.1-8.3.6.2 Receptacles in Patient Care Areas:
X receptacles provided according to Table 2.1-1

2.1-8.3.7 **CALL SYSTEMS**
X Nurse call equipment legend includes patient stations, bath stations, staff emergency stations & code call stations

2.1-8.3.7.1
(1) X Nurse call system locations provided as required in Table 2.1-2
(2) X Nurse call systems report to attended location with electronically supervised visual & audible signals
(4) X Call systems meet requirements of UL 1069 *Standard for Hospital Signaling & Nurse Call Equipment*
(5) ___ Wireless system
[X] check if not included in project
___ meet requirements of UL 1069

2.1-8.3.7.3 Bath Stations:
X provided at each patient toilet
(1) X alarm turned off only at bath station where it was initiated
(3) X located to side of toilets within 12" of front of toilet bowl & 3'-0" to 4'-0" above floor

2.1-8.3.7.4 X Staff emergency stations for summoning local staff assistance for non-life-threatening situations at each patient care location

2.1-8.3.7.5 X Code call station equipped with continuous audible or visual signal at point of origin

2.1-8.4.2 **PLUMBING & OTHER PIPING SYSTEMS**

2.1-8.4.2.5 Heated Potable Water Distribution Systems:
(2) X systems serving patient care areas are under constant recirculation
X non-recirculated fixture branch piping does not exceed 25'-0" in length
(3) X no dead-end piping
(4) X water-heating system has supply capacity at minimum temperatures & amounts indicated in Table 2.1-3
(5) X handwashing stations supplied as required above
or
___ handwashing stations supplied at constant temperature between 70°F & 80°F using single-pipe supply

2.1-8.4.2.6 Drainage Systems:
(1) ___ drainage piping above ceiling of, or exposed in trauma rooms or electric closets
[X] check if not included in project
___ special provisions to protect space below from leakage & condensation
(2) Floor Drains:
(a) ___ no floor drains in trauma rooms
(5) Plaster Traps:
(a) X sink is used for disposal of plaster of Paris
☐ check if not included in project
X plaster trap provided

2.1-8.4.3 **PLUMBING FIXTURES**

2.1-8.4.3.1(1) X Materials material used for plumbing fixtures non-absorptive & acid resistant

2.1-8.4.3.2 Handwashing Station Sinks:
(1) X basins reduce risk of splashing to areas where direct patient care is provided, sterile procedures are performed & medications are prepared
(2) X basin min. 144 square inches
X min. dimension 9 inches
(3) X made of porcelain, stainless steel, or solid-surface materials
(5) X water discharge point of faucets at least 10 inches above bottom of basin
(7) X anchoring for sinks withstands min. vertical or horizontal force of 250 lbs.
(8) X fittings operated without using hands for sinks used by medical & nursing staff, patients & public
(a) X blade handles or single lever
X min. 4 inches long
X provide clearance required for operation
or
(b) X sensor-regulated water fixtures
X meet user need for temperature & length of time water flows
X designed to function at all times & during loss of normal power

2.1-8.4.3.4 Ice-Making Equipment:
X copper tubing provided for supply connections

2.1-8.4.3.5 Clinical Sinks:
[X] check if not included in project
(1) ___ trimmed with valves that can be operated without hands
(2) ___ handles min. 6 inches long
___ integral trap wherein upper portion of water trap provides visible seal

2.1-8.4.3.6 Scrub Sinks:
(1) ___ freestanding scrub sinks trimmed with foot, knee, or electronic sensor controls

2.1-8.4.4 **MEDICAL GAS & VACUUM SYSTEMS**

X Station outlets provided as indicated in Table 2.1-4

2.1-8.4.4.2
(2) X Vacuum discharge at least 25'-0" from all outside air intakes, doors & operable windows

2.1-8.6.2 **ELECTRONIC SURVEILLANCE SYSTEMS**
☐ check if not included in project

2.1-8.6.2.1 X Devices in patient areas mounted in unobtrusive & tamper-resistant enclosures

2.1-8.6.2.2 X Monitoring devices not readily observable by general public or patients

2.1-8.6.2.3 X Receive power from emergency electrical system

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Memo

To: Tyson Moulton, Northwestern Medical Center (NMC)

From: David Adams

Date: June 10, 2019

Re: NMC – Emergency Department Renovation

This memo confirms that Efficiency Vermont is working closely with Tyson Moulton and NMC on the development and implementation of the Emergency Department Renovation project at their St. Albans facility.

As part of the project team, Efficiency Vermont has assigned a designated energy consultant, who will provide support services as part of the design process, including:

- Technical assistance & recommendations on energy efficiency opportunities
- Cost/benefit analysis of options
- Collaborate with Architects/Contractors
- Provide "Objective Expertise"
- Financial incentives & assistance

The collaborative goal of these efforts is to achieve the highest levels of efficiency that are appropriate for a project of this nature, and in the process, reduce energy costs, strengthen the economy, and protect our environment.

If you have any questions, don't hesitate to contact me directly.

Thanks,

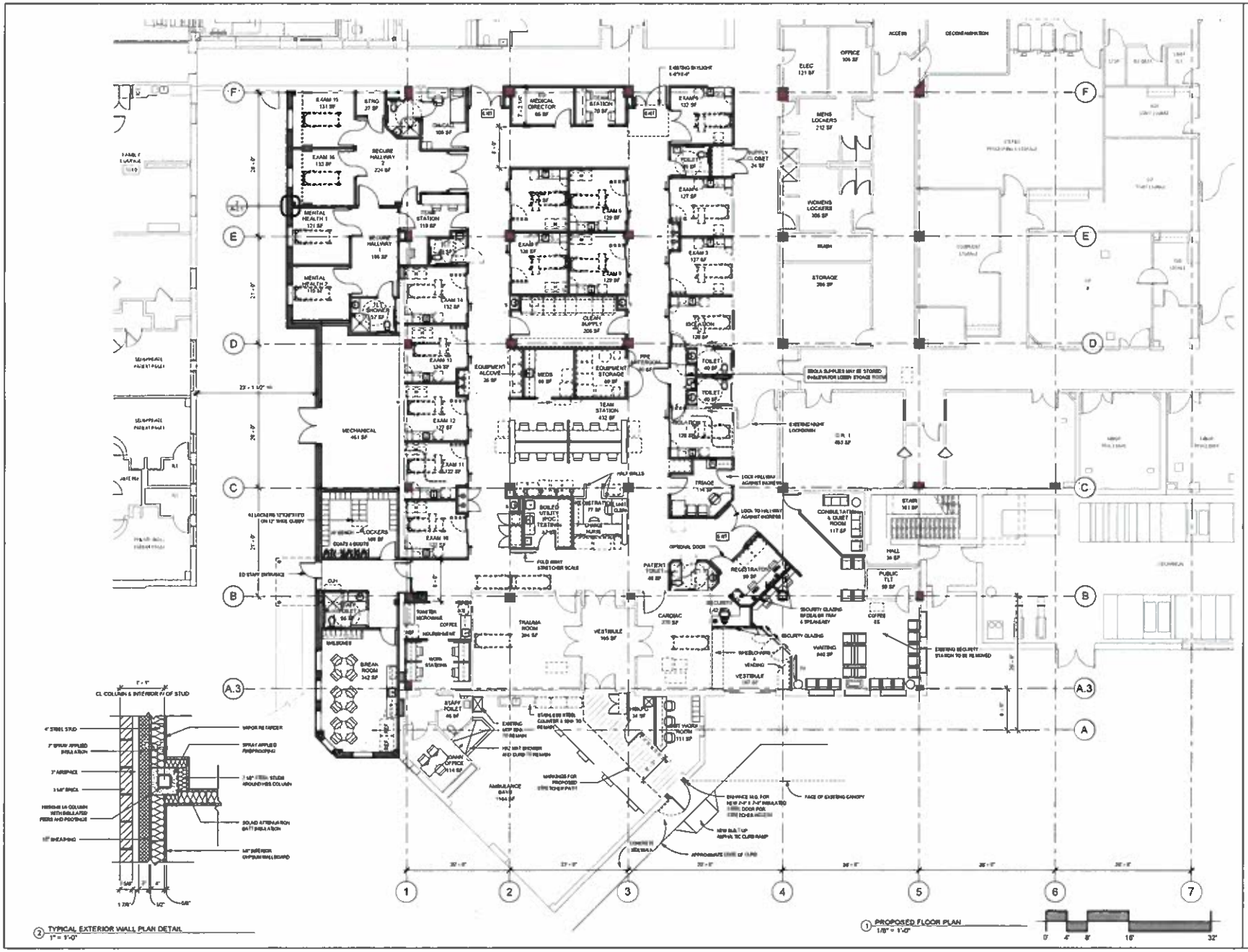
David C. Adams, BEP

Senior Account Manager

Efficiency Vermont

P: (802) 540-7628

C: (802) 318-7561



e4h ENVIRONMENTS FOR HEALTH ARCHITECTURE

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St Albans Vermont

EMERGENCY DEPARTMENT RENOVATION

2016108
06242019
As indicated

PROPOSED FLOOR PLAN

A-2.1

Exhibit 7

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