Capital Asset Realignment for Enhanced Services (CARES)

Stage I Report
Site: Brooklyn-Manhattan

June 2006

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Project Overview

CARES (Capital Asset Realignment for Enhanced Services) is the Department of Veterans Affairs (VA's) effort to produce a logical, national plan for modernizing healthcare facilities. The objective is to identify the optimal approach to provide current and projected veterans with healthcare equal to or better than is currently provided in terms of access, quality, and cost effectiveness, while maximizing any potential re-use of all or portions of the current real property inventory owned by VA. The Secretary's Decision Document of May 2004 called for additional studies in certain geographic locations to refine the analyses developed in the CARES planning and decision-making process. Team PricewaterhouseCoopers (Team PwC) is assisting VA in conducting the VA CARES Business Plan Studies at 17 sites around the United States, which include site-specific requirements for Healthcare Delivery Studies, Capital Plans, and Re-use Plans.

The Brooklyn and Manhattan campuses of the VA New York Harbor Healthcare System (NYHHS) are a part of the CARES study and include healthcare delivery, capital planning, and re-use planning studies. The Secretary's CARES Decision for the Brooklyn and Manhattan campuses provides the following guidance for this study:

- VA will study the feasibility, cost-effectiveness, and impact of consolidating the Brooklyn and Manhattan campuses.
- To assess the potential for consolidation, VA will develop a comprehensive study of the feasibility, cost-effectiveness, and impact of developing a modern, efficient, healthcare system in the New York area.
- The system to be studied would be anchored by a comprehensive tertiary care medical center located in either Manhattan or Brooklyn and will include plans for development of strategically located multi-specialty outpatient clinics and Community Based Outpatient Clinics (CBOCs) targeted to support the tertiary hub, maximize access, and bring primary, mental health, and specialty care services closer to where veterans live.
- The study will analyze the demand for nursing home care services.

The CARES studies are being performed in three stages: an initial planning phase and two phases centered on option development and selection. This report presents the results of Stage I (option development). In Stage I, Team PwC develops and assesses a broad range of potentially viable Business Plan Options (BPOs) that meet the forecast healthcare needs for the study sites. Based upon a broad analysis of these options, Team PwC recommends up to six options to be taken forward for further development and assessment in Stage II. VA decides which options should be studied further in Stage II. Stakeholder input from veterans, veterans advocates, and the community play an important role in option development and assessment. A Local Advisory Panel (LAP) has been established to ensure veterans' issues and concerns are heard throughout

the study process. Veterans' and other stakeholder views can be presented at a series of public meetings and through written and electronic communication channels.

Brooklyn-Manhattan Overview

In 1999, VA NYHHS was formed through the integration of the Brooklyn VAMC (which included the St. Albans Primary and Extended Care Center) and the New York VAMC. Prior to this integration, the Brooklyn and New York medical centers were separate entities and had their own administrative and clinical organizations. In the ensuing years, administrative and clinical functions have been consolidated, with one executive management staff.

VA NYHHS is an integrated healthcare organization within Veterans Integrated Service Network (VISN) 3. It consists of three main campuses: Brooklyn, New York (referred to herein as the Manhattan campus), and St. Albans. This study focuses on the Brooklyn and Manhattan campuses. There are also CBOCs in Staten Island, Chapel Street (downtown Brooklyn), 16th Street in Manhattan, Harlem, and SoHo (the geographical area south of Houston Street and north of Canal Street in Manhattan). VISN 3 is composed of three markets: Long Island, Metro New York, and New Jersey. VA NYHHS is in the Metro New York market.

Five major drivers were considered for the Brooklyn-Manhattan study site. These drivers represent factors particularly noticeable at the Brooklyn-Manhattan study site that must be balanced in the development and evaluation of BPOs. They are:

1. Closure of a campus and/or service realignment at either campus may disrupt or terminate academic affiliations with each campus. In turn, the quality of medical services for programs reliant on academic affiliations would likely be impacted. Such changes would likely result in large implementation risks related to organizational and change management, local acceptance, and veteran access to care.
2. Drive time analyses show that the Metro New York Market area meets drive time guidelines, but the drive time analyses do not account for heavy veteran reliance upon public transportation.
3. Consolidating both campuses may produce operating cost savings and potential re-use proceeds, but there are also significant capital costs required to achieve consolidation.
4. Based upon the analysis of current and future vacant space, the opportunity to right-size both the Brooklyn and Manhattan campuses exists.
5. Several factors limit re-use to three scenarios for the Brooklyn-Manhattan study site: 1) the entire Brooklyn campus is made available, 2) the entire Manhattan campus is made available, and 3) the Brooklyn and Manhattan campuses are both made available.

These five drivers are described further below.

Affiliation with Academic Medical Centers – Both campuses have extensive and exclusive affiliations with local academic medical centers. A BPO that results in the closure of one or both facilities will significantly disrupt, if not terminate, such existing relationships. The Brooklyn campus is affiliated with the State University of New York-Downstate (SUNY). The Brooklyn

campus maintains a fully integrated residency program with SUNY in general medicine and specialty medicine services including cardiology, endocrinology, gastroenterology, hematology/oncology, pulmonary medicine, nephrology, infectious disease, and rheumatology. The primary clinical affiliation for the Manhattan facility is with the New York University (NYU) School of Medicine. Because of the significant travel time for faculty between both facilities, a BPO that results in the complete closure of a facility would most likely also result in the termination of that facility's academic affiliation. While there is some minor overlap of services between each facility's integrated residency programs (e.g., dental services), the risk exists that VA NYHHS would be left without residency programs in key healthcare service areas including orthopedics, urology, cardiology, dermatology, and rehabilitation medicine. Additionally, the Manhattan facility supports four Centers of Excellence and has been at the forefront of clinical care and research for patients with HIV/AIDS since the beginning of the epidemic. It is the only VHA facility to house both a designated clinical care unit and Research Center for AIDS and HIV Infection (RCAHI).

If the clinicians that are at least equally skilled cannot replace the current clinicians provided through these academic affiliations, the quality of medical services is likely to decrease. Additionally, if services are moved, there would be significant implementation risk related to organizational and change management, local acceptance, and veteran access to care. Moving services from one campus to another would require extensive organizational and change management activities in order to transition effectively between sites. Also, patients, academic affiliates, and local, state, and federal government officials would have extremely negative reaction to any option that completely abandons either the Brooklyn or the Manhattan campus.

Access – Drive time guidelines at the market level have a criteria threshold of 70% for primary care and 65% for acute and tertiary care. Currently, the Metro New York market area meets the access guideline for all areas of care (99.6% for primary care, 99.8% for acute care and 100% for tertiary care). Although drive time guidelines are met for the Metro New York market, drive time analyses do not take into account that many veterans in metropolitan New York rely on public transportation. Veterans who utilize the Brooklyn campus are generally more likely to travel to the campus by automobile, while veterans that utilize the Manhattan campus are generally more likely to travel to the campus by public transportation. Using public transportation to move between Manhattan and Brooklyn significantly increases travel time and any option that results in complete closure of one facility or the other may affect veteran access to healthcare services. VA recognizes that in New York City, the application of guidelines for drive time is less meaningful due to congestion and the need to measure commute time.

Capital Costs of Consolidation – If a BPO results in either campus being completely vacated, phased renovation of the surviving building and new construction would be required to accommodate the total volume of services being located in one consolidated facility. If the Brooklyn campus becomes the consolidated site, the construction of a new building of 186,000 square feet and the demolition of Buildings 2 and 3 to allow space for the new building would be required. In addition, there are 222,000 square feet of surface parking that will need to be replaced with a six-story 550,000 square foot structured parking facility. If the Manhattan campus becomes the consolidated site, new construction and renovations would be required to

accommodate the total volume of services being located at Manhattan. This includes a new building of 345,000 square feet, to accommodate the required demand, and the demolition of Buildings 2 and 3 to allow space for the new building.

If vacating either campus, efficiencies in operating cost would be gained and significant re-use proceeds potential of the vacant campus would be realized. Regardless of the configuration of buildings and the configuration site, consolidation to one campus would require significant capital expenditures for new construction, renovation, and demolition.

Right-Sizing of Campus – Both the Brooklyn and Manhattan facilities were built to support a larger number of veterans than they currently serve. The Brooklyn facility is authorized for 369 beds, but currently operates 147 beds. The Manhattan facility is authorized for 399 beds, but currently operates 171 beds. Inpatient utilization demand data suggests that the Brooklyn facility will experience an 11% decline in bed need through 2023 and that the Manhattan facility will experience a 24% decline in bed need. The projected decline in demand for inpatient services over the next 20 years will increase the surplus capacity at both facilities and consequently lower the operating efficiency of each facility. Each option will right-size facilities to accommodate projected demand by consolidating services into modern, safe, and secure facilities.

Re-Use Potential – Zoning restrictions and real estate trends suggest the primary re-use potential for each campus is for residential development (condominiums or apartments). Zoning restrictions and the existing layout of the sites do not permit separation of the campus into parcels to accommodate a new residential structure.

Although several of the BPOs recapture a significant amount of space located within the existing buildings of the site for potential re-use, the marketability of such vacant space to permitted users at market rates is limited as well. Potential tenants for the space would predominantly include institutional or tenants affiliated with the existing operations at the center. Market conditions dictate that such users would most likely provide a below-market-rate return to VA. In the case of both Brooklyn and Manhattan, the footprint necessary for a residential development with sufficient unit density to render the project financially feasible to the private development community cannot be accommodated at either site. Since both campuses have a lack of available space for new construction, limiting zoning implications, and the limited marketability of vacant space to permitted users at market rates, a fractionalization strategy for potential re-use is not practical. Therefore, the re-use potential for either campus may only be realized if either campus is completely vacated.

Business Plan Options

Team PwC considered the major drivers for the Brooklyn-Manhattan study site, along with stakeholder input, when developing healthcare, capital, and re-use options. For the Brooklyn-Manhattan CARES study site, 7,840 stakeholder comments were received between April 20, 2005 and September 29, 2005. Stakeholders were most concerned with maintaining current services/facilities.

The option development process resulted in a multitude of discrete healthcare, capital, and re-use options, which were subsequently screened to determine whether a particular option had the potential to meet or exceed the CARES objectives (i.e., access, quality, and cost). Overall, in addition to the baseline, there were eight BPOs (comprising healthcare, capital, and re-use components) which passed initial screening and were developed for Stage I. Each BPO was assessed at a more detailed level according to a set of discriminating criteria. A tenth BPO was proposed by the LAP at the second LAP Public Meeting. This BPO, however, resulted in significant initial capital investment and did not pass the initial screening criteria.

BPO Recommendations for Assessment in Stage II

Team PwC's recommendation of BPOs to be further assessed in Stage II was determined based on several factors. Team PwC considered the pros and cons of each option, together with the results of assessments against discriminating criteria to determine the overall attractiveness of each BPO. Views and opinions of the LAP and oral and written testimony received from veterans and other interested groups were also considered. All of these inputs contributed to the selection of the BPOs to be recommended for further study in Stage II, which are summarized in Table 1 with pros and cons identified for each option.

BPOs 6 and 7 would provide an attractive solution to upgrading both campuses to modern, safe, and secure standards, while right-sizing the campuses for future demand. Additionally, these BPOs retain at least some services at both the Brooklyn and Manhattan campuses, which results in lower implementation risk related to veteran access to care than BPOs that vacate one or both campuses. These recommended BPOs would also better preserve both campuses' academic affiliations and the quality of care that is associated with those affiliations, and lower implementation risk related to local acceptance. BPO 9 puts forth an option that addresses the Secretary's Decision to study "the feasibility, cost-effectiveness, and impact of consolidating the Brooklyn and Manhattan campuses".

Table 1: BPO Recommendations

BPO	Team PwC Recommendation	Rationale for Recommendation	LAP Support
BPO 1 Baseline	Further Study	• Is the BPO against which all other BPOs are to be assessed	
BPO 2 Consolidate at Brooklyn Campus and Expand Harlem and SoHo CBOCs	No Further Study	• May negatively impact public transportation access to care while maintaining overall drive time access to care • Potential to decrease quality of medical services since Manhattan Centers of Excellence, affiliations, and research programs as well as ability to recruit key clinical personal may be negatively affected • Higher risk of implementation than the baseline related to quality, reputation, and local acceptance	Oppose

BPO	Team PwC Recommendation	Rationale for Recommendation	LAP Support
BPO 3 Consolidate at Manhattan Campus, Develop New Queens and Borough Hall CBOCs	No Further Study	• May increase implementation risk related to veteran access to care via public transportation while maintaining overall drive time access to care. • Potential to decrease quality of medical services since Brooklyn affiliations, research programs, and ability to recruit key clinical personal may be negatively affected • Higher risk of implementation than the baseline related to quality, continuity of care, reputation, and local acceptance	Oppose
BPO 4 Consolidate Inpatient Only at Manhattan Campus, Retain Brooklyn Ambulatory Services at Poly Place, Develop New Queens and Borough Hall CBOCs.	No Further Study	• May increase implementation risk related to veteran access to care via public transportation while maintaining overall drive time access to care • Potential to decrease quality of medical services since Brooklyn affiliations, research programs, and ability to recruit key clinical personal may be negatively affected • Higher risk of implementation than the baseline related to quality, continuity of care, reputation, and local acceptance • Despite the very large amount of vacated space at the Brooklyn campus, maintaining ambulatory services at Brooklyn would not allow for any re-use. This is due to the highly integrated Brooklyn campus, buffer requirements, and zoning regulations.	Oppose
BPO 5 Convert Manhattan Campus to Medical/Surgical, Convert Brooklyn Campus to Psychiatry/Behavioral Health	No Further Study	• This BPO completely separates acute psychiatry from acute medical/surgical care. With the increasing rate of co-morbidities – patients who have both psychiatric and medical conditions – this separation runs counter to contemporary care models and would reduce quality of care.	Oppose
BPO 6 Service Line Consolidation: Cardiology/Orthopedics/ Women's Health at Manhattan; Oncology to Brooklyn	Further Study	• Overall, lower net present cost than the baseline due to operating cost efficiencies gained • Lower implementation risk than BPOs 2, 3, 4, and 8 related to continuity of care, reputation, and local acceptance by retaining both campuses • Avoids increased difficulty of recruitment associated with consolidation of services at one campus • Lessens impact on affiliations and research programs as well as public transportation access compared to BPOs 2, 3, 8, or 9, which relocate more services than this BPO	Favor
BPO 7 Incremental Realignment with New and Expansion of Existing CBOCs	Further Study	• Provides similar advantages and disadvantages compared to BPO 6, but as the approach in BPO 7 is incremental, it is by nature the most flexible and adaptable BPO • This BPO improves on BPO 6 by increasing and enhancing NYHHS' CBOC presence through new CBOCs in Queens and outer Brooklyn, and expanded services at existing CBOCs in Harlem and the Chapel Street locations • This BPO extends and enhances NYHHS' initiatives to collaboratively realign services between the Brooklyn and Manhattan campuses to promote patient access and operational efficiency without upsetting the delicate balance of teaching and research interests required to sustain the academic affiliations unique to each facility	Favor

BPO	Team PwC Recommendation	Rationale for Recommendation	LAP Support
BPO 8 New Consolidated Campus in Queens	No Further Study	• May increase implementation risk related to veteran access to care via public transportation while maintaining overall drive time access to care • Potential to decrease quality of medical services since Manhattan and Brooklyn Centers of Excellence, educational affiliations, research programs, and ability to recruit key clinical personal may be negatively affected • Higher risk of implementation than BPOs 5 and 6 related to quality, continuity of care, reputation, and local acceptance • May negatively affect collaboration with Department of Homeland Security	Oppose
BPO 9 New Consolidated Campus in Brooklyn with Expansion of CBOCs	Further Study	• Overall, lower net present cost than the baseline due to significantly higher re-use potential and gains in operating cost efficiency • Improves adherence to modern, safe, and secure standards through all new construction compared to only renovations in the baseline • Vacating the current Manhattan and Brooklyn campuses provides significant re-use potential that will help offset initial capital investment required for a new campus. • Recommending BPO 9 for further study will put forth an option that addresses the Secretary's Decision to study "the feasibility, cost-effectiveness, and impact of consolidating the Brooklyn and Manhattan campuses."	Oppose
BPO 10 Build Replacement Facilities at Existing Sites with CBOC Expansions[1]	No Further Study	• Disruptions to service may require contracting out services during construction • Potential implementation risk related to continuity of care • Affiliations and research programs may be negatively affected during complex phasing • Significant capital costs are required to construct two new campuses	Oppose

For those BPOs selected for further study by the Secretary, a more detailed assessment will be conducted in Stage II including a financial analysis with refined inputs and consideration of second-order impacts such as the implications on the local community. After Stage II, Team PwC will recommend a single BPO to the Secretary.

[1] BPO added by the LAP at the second public meeting.

1.0 Introduction

CARES (Capital Asset Realignment for Enhanced Services) is the Department of Veterans Affairs (VA's) effort to produce a logical, national plan for modernizing healthcare facilities. The objective is to identify the optimal approach to provide current and projected veterans with healthcare equal to or better than is currently provided in terms of access, quality, and cost effectiveness, while maximizing any potential re-use of all or portions of the current real property inventory owned by VA. The Secretary's Decision Document of May 2004 called for additional studies in certain geographic locations to refine the analyses developed in the CARES planning and decision-making process. Team PricewaterhouseCoopers (Team PwC) is assisting VA in conducting the VA CARES Business Plan Studies at 17 sites around the United States, which include site-specific requirements for Healthcare Delivery Studies, Capital Plans, and Re-use Plans.

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- The study will analyze the demand for nursing home care services.

2.0 Purpose of this Report

The CARES studies are being performed in three stages: an initial planning phase and two phases centered on option development and selection. This report presents the results of Stage I (option development). In Stage I, Team PwC develops and assesses a broad range of potentially viable business plan options (BPOs) that meet the forecast healthcare needs for the study sites. Based upon an initial analysis of these BPOs, Team PwC recommends up to six BPOs to be taken forward for further development and assessment in Stage II. VA decides which BPOs should be studied further in Stage II. During Stage II, a more detailed assessment is conducted including a financial analysis with refined inputs and consideration of second-order impacts such as the implications on the community. After Stage II, Team PwC recommends a single BPO to the Secretary.

Stakeholder input from veterans, veterans advocates, and the community play an important role in BPO development and assessment. A Local Advisory Panel (LAP) has been established at each study site to ensure veterans' issues and concerns are heard throughout the study process. Veterans' and other stakeholder views are presented at a series of public meetings and through written and electronic communication channels.

Team PwC has prepared this report in accordance with the CARES Business Plan Studies Methodology and Statement of Work (SOW) for the CARES studies. The SOW calls for submission in Stage I of a range of BPOs that are at the concept stage and represent feasible choices that have the potential to meet VA objectives. In Stage II, Team PwC will further develop selected BPOs into technical data driven analyses and a recommended primary BPO.

3.0 Site Overview

In 1999, VA NYHHS was formed through the integration of the Brooklyn VAMC (which included the St. Albans Primary and Extended Care Center) and the New York VAMC. Prior to this integration, the Brooklyn and New York medical centers were separate entities and had their own administrative and clinical organizations. In the ensuing years, administrative and clinical functions have been consolidated, with one executive management staff.

VA NYHHS is an integrated healthcare organization within VISN 3. It consists of three main campuses: Brooklyn, New York (referred to in this study as the Manhattan Campus), and St. Albans. There are also CBOCs in Staten Island, Chapel Street (downtown Brooklyn), 16th Street in Manhattan, Harlem and SoHo (the geographical area south of Houston Street and north of Canal Street in Manhattan). VISN 3 is composed of three markets: Long Island, Metro New York, and New Jersey. VA NYHHS is in the Metro New York market. Figure 1 illustrates the location of the three campuses.

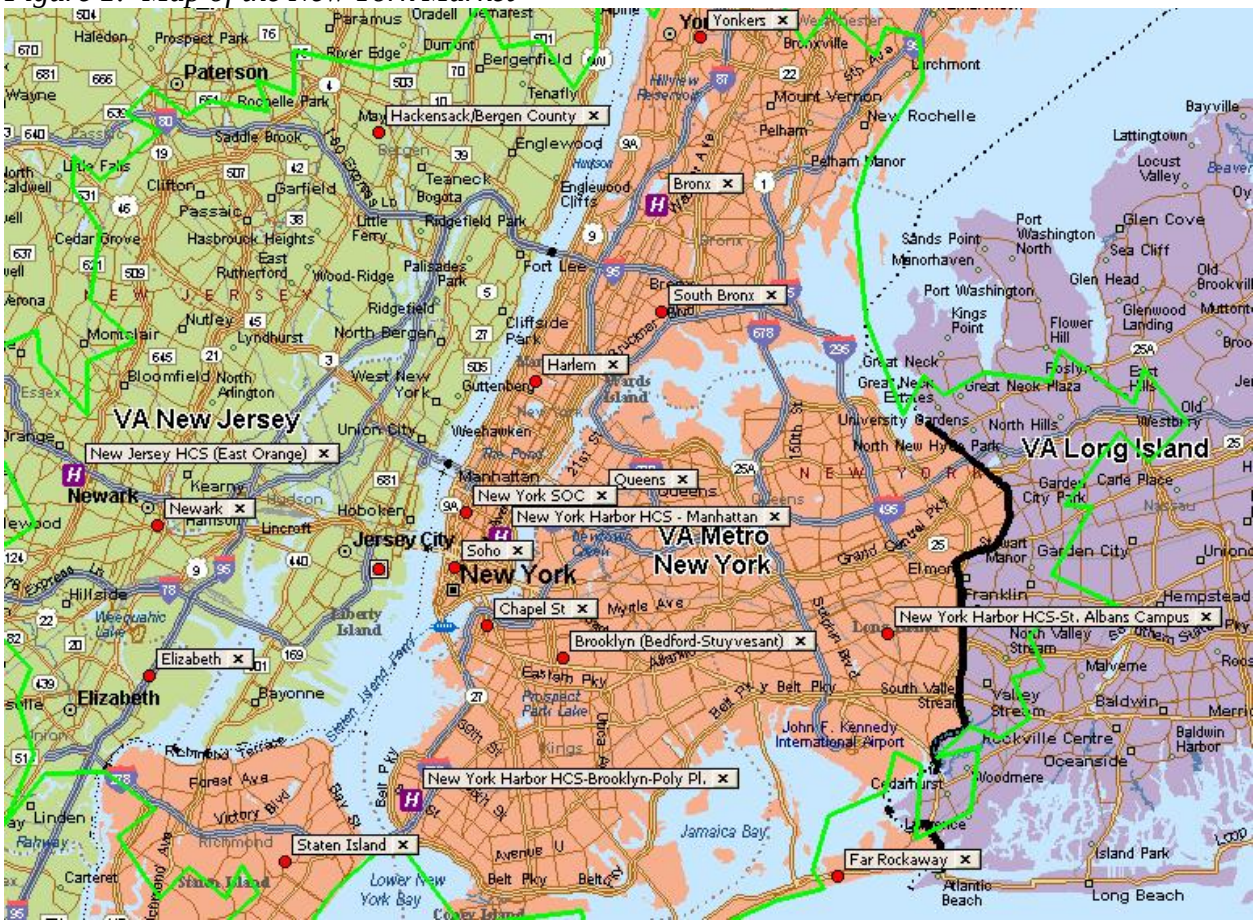
The Research and Development Service is an integrated program across VA NYHHS that is broad and varied in scope. It includes basic science research, clinical trials, and centers of excellence in most of the major programs overseen by the VA Research Central Office, such as co-operative studies, medical research, rehabilitation research and development (R&D), and specialized centers. The major fields of investigation include, but are not limited to, cardiovascular electrophysiology, hematology/oncology, cancer, infectious diseases including AIDS, mental health and substance abuse, optometry, and rehabilitation engineering. VA, the National Institutes of Health (NIH), American Heart Association (AHA) and other non-VA funding support these research activities.

The Brooklyn and Manhattan campuses have multiple sharing agreements with the Department of Defense (DoD) (including TRICARE[2]) and with various other federal agencies. Additional

[2] TRICARE is the Department of Defense's worldwide health care program for active duty and retired uniformed services members and their families.

sharing agreements exist with the Metropolitan Medical Association, New York State Veterans Home at Montrose, and the Salvation Army.

Figure 1: Map of the New York Market



Current Healthcare Provision

Manhattan Campus

The Manhattan campus has inpatient services in acute medicine, surgery, acute psychiatry, neurology, and rehabilitation medicine. It is the VISN 3 referral center for interventional cardiology (i.e., angioplasty and stenting), cardiac surgery, neurosurgery, and urology. The preservation and amputation care team (PACT) and the prosthetic treatment center are located at the Manhattan campus. Close affiliations with Bellevue, Tisch Hospital, and Rusk Institute of Rehabilitation Medicine contribute to the Medical Center's excellence as an amputee center and comprehensive rehabilitation medicine service. The prosthetic and sensory aids service operates satellite clinics at other VISN 3 facilities.

The VISN footwear center is located at the Manhattan campus and provides special orthopedic shoes to veterans throughout the network. The prosthetic and orthotic lab is a referral center for

other VA facilities, especially those in VISN 4 (principally Pennsylvania and Delaware) and VISN 5 (principally Virginia and Maryland). VA NYHHS has an arrangement with the DoD where it is the sole source provider of special orthopedic footwear to active duty, reservists, national guardsman, ROTC, and retirees. The facility is currently in negotiation for a recurring grant from The Wounded Warrior Project Group to become a Center of Excellence for upper extremity prosthetics. This is motivated by the current conflict in Iraq, which has increased the number of upper extremity amputees.

The facility has been at the forefront of clinical care and research for patients with HIV/AIDS since the beginning of the epidemic. It is the only VHA facility to house both a designated clinical care unit and research center for AIDS and HIV infection (RCAHI). The RCAHI staff includes 12 M.D. and Ph.D. scientists who, with the support of grants from VHA and the National Institutes of Health, and others, investigate the pathogenesis and treatment of HIV and its complications.

The Manhattan facility has highly specialized urologic expertise, including a urology stone center with a state-of-the-art lithotripter. Other specialized services include microvascular surgical techniques for free flaps, surgical techniques for vitrectomy and prosthetic joint replacement, the latest cryosurgical techniques for microvascular ENT surgery, and state-of-the-art treatment for dermatologic patients through Mohs surgery.[3]

VA NYHHS HIV/AIDS, cardiac surgery, rehabilitation medicine, and dialysis programs recently have been designated as VHA Centers of Excellence. Veterans are enrolled in the medical center's primary care program which establishes one healthcare provider (physician, physician assistant, or nurse practitioner) and team, to coordinate the patient's care. A broad spectrum of inpatient and outpatient services is available in medicine, surgery, psychiatry, dermatology, rehabilitation medicine, pathology, nephrology, laboratory medicine, and radiology. An innovative house staff rotation in ambulatory care medicine and primary care pharmacy makes the campus a preferred site for training medical students. In addition, mental health primary care teams have been established for veterans whose primary diagnosis is psychiatry-related.

The Manhattan campus is affiliated with many schools of higher education. The primary clinical affiliation is with the New York University (NYU) School of Medicine. The residency programs are fully integrated with those at NYU and Bellevue Medical Centers. A fully integrated dental affiliation exists with the NYU School of Dentistry. University-level allied health training programs exist in nursing, audiology, speech pathology, occupational therapy, physical therapy, psychology, pharmacy, and social work. Health system specialist trainees and administrative residents and fellows regularly intern at the facility.

Brooklyn Campus

The Brooklyn campus is a tertiary care, academically-affiliated medical center located in Bay Ridge, Brooklyn. It has bed services in acute medicine, surgery, psychiatry, and residential

[3] Mohs micrographic surgery is an advanced treatment procedure for skin cancer.

substance abuse. Specialized programs exist in comprehensive cancer care and non-invasive cardiology. The cancer care program includes special expertise in palliative care and radiation oncology. The radiation oncology service is fully equipped with both state-of-the-art brachytherapy and teletherapy services. Three-dimensional radiotherapy, prostate brachytherapy (seed implants), and high dose rate (HDR) treatments are routinely available. The Brooklyn campus also provides specialized cardiac care in the area of electrophysiology.

The Brooklyn campus is affiliated with the State University of New York-Downstate (SUNY). A fully integrated residency program exists with SUNY in general medicine and specialty medicine services including cardiology, endocrinology, gastroenterology, hematology/oncology, pulmonary medicine, nephrology, infectious disease, and rheumatology. The campus also provides general surgery, urology, orthopedic surgery, ophthalmology, otolaryngology, anesthesiology, dermatology, pathology, and rehabilitation medicine. The optometry service is affiliated with the SUNY School of Optometry. The medical center is affiliated with the NYU School of Dentistry. University-level allied health training programs exist in nursing, audiology, speech pathology, occupational therapy, physical therapy, psychology, pharmacy, and social work. Health system specialist trainees and administrative residents and fellows regularly intern at the facility. As part of the integrated VA NYHHS, the Brooklyn campus works closely with both the Manhattan campus and the St. Albans campus in the coordination of care and sharing of resources.

Veterans are enrolled in the medical center's primary care program which establishes one healthcare provider (physician, physician assistant, or nurse practitioner) and team to coordinate the patient's care. A broad spectrum of inpatient and outpatient services is available in medicine, surgery, psychiatry, dermatology, rehabilitation medicine, pathology, nephrology, laboratory medicine, and radiology. An innovative house staff rotation in ambulatory care medicine and primary care pharmacy makes the campus a preferred site for training medical students. In addition, mental health primary care teams have been established for veterans whose primary diagnosis is psychiatry-related. Additionally, VA NYHHS has recently been approved for a Fisher House to be located on the Brooklyn campus. Also at Brooklyn, a Women's Healthcare Center, with a dedicated mammography unit, exists offering comprehensive medical services to female veterans.

Both the Brooklyn and Manhattan facilities were built to support a larger number of veterans than they currently serve. The Brooklyn facility is authorized for 369 beds, but currently operates 147 beds. The Manhattan facility is authorized for 399 beds, but currently operates 171 beds. Inpatient utilization demand data suggests that the Brooklyn facility will experience an 11% decline in bed need through 2023 and that the Manhattan facility will experience a 24% decline in bed need. The projected decline in demand for inpatient services over the next 20 years will increase the surplus capacity at both facilities.

Access

Analysis of drive time information for enrollees in the Metro New York market indicates that VA's drive time guideline is met for primary care, acute care, and tertiary care (see Table 2).

Drive time guidelines at the market level are as follows: 70% of enrollees for primary care and 65% of enrollees for acute hospital and tertiary care should be within the minimum travel times to a VA facility. Currently, the Metro New York Market area significantly exceeds the access guideline for all areas of care. For primary care, 99.6% of the enrollees meet the access guideline, 99.8% meet the acute care access guideline, and 100% of enrollees are within the access guideline for tertiary care.

Table 2: Percentage of Enrollees Meeting VA Access Guideline Drive Times for the Metro New York Market

VA Drive Time Guidelines					
Primary Care		**Acute Hospital**		**Tertiary Care[4]**	
Current Level	**Meets Threshold**	**Current Level**	**Meets Threshold**	**Current Level**	**Meets Threshold**
99.6%	Yes	99.8%	Yes	100%	Yes

Using public transportation to move between Manhattan and Brooklyn significantly increases travel time and any option that results in complete closure of one facility or the other may affect veteran access to healthcare services. VA recognizes that in New York City the application of guidelines for drive time is less meaningful than in less urbanized areas.

Quality

Quality Measures

The measures listed below (see Table 3) provide a selective description of current healthcare clinical quality at VA NYHHS, along with corresponding results at the VISN and VA national levels. This set of measures was chosen by PwC and VA experts based on available internal VA data, and compatibility with Centers for Medicare and Medicaid Services (CMS), and industry standard reporting. The primary purpose of these quality measures in relation to the CARES healthcare study is for use as a benchmark in comparison to the various BPOs to determine any significant quality impacts. Although the quality measures gathered for analysis are based on 2004 data, for the evaluation of quality of care for the year 2023, Team PwC assumes a linear relationship with this current data. The quality data is aggregated for the VA NYHHS and cannot be disaggregated by campus.

According to 2004 data, NYHHS achieved the following for select quality scores as compared to overall VA national scores:

- Better or comparable scores for inpatient care and ambulatory care.
- Worse scores for mental health and patient satisfaction.

NYHHS achieved the following for select quality scores as compared to overall VISN 3 scores:

[4] Tertiary care data is based on 2001 figures. All other information is based on 2003 figures.

- Better or comparable scores for inpatient care and endocrinology (ambulatory care).
- Worse scores for colorectal cancer (ambulatory care), mental health, and patient satisfaction

Table 3: Quality Measures

Clinical Setting	Indicator	Indicator Origin	VA NYHHS Result	VISN 3 '04 Result	VA National '04 Result
Inpatient Care					
Heart Failure	Ace inhibitor for left ventricular dysfunction as a key inpatient measure	VA, [CMS][5]	**94%**	**93%**	**93%**
Ambulatory Care					
Colorectal Cancer	Screening rate	VA, HEDIS[6]	**71%**	**74%**	**72%**
Endocrinology	Full lipid profile in the past two years	VA, HEDIS	**97%**	**97%**	**96%**
Mental Health					
Major Depressive Disorder	% of patients with a new diagnosis of depression -- medication coverage	VA, HEDIS	**52%**	**56%**	**67%**
Global Index	Weighted average of seven mental health indicators[7]	VA	**51%**	**57%**	**54%**
Patient Satisfaction					
Ambulatory Care	% of surveyed patients rating overall Ambulatory Care Services as very good or excellent	VA, Industry	**75%**	**76%**	**76%**
Inpatient Care	% of surveyed patients rating overall Inpatient Services as very good or excellent	VA, Industry	**69%**	**71%**	**74%**

Patient Wait Times

Patient wait time is measured by using the day the appointment was entered into the scheduling system as the "desired appointment date". The wait time is calculated by taking the difference between the day the appointment was entered into the schedule and the day of the actual

[5] CMS stands for Centers for Medicare and Medicaid Services.

[6] HEDIS stands for Health Plan Employer Data and Information Set, which is a set of standardized performance measures used to compare performance of managed care plans.

[7] See Glossary for description of indicators.

appointment encounter. For new patients, the wait time guideline is 80% between 0-30 days of desired appointment date, while for existing patients, the wait time guideline is 95% between 0-30 days of desired appointment date.

Brooklyn Campus

Wait times for new patients at the Brooklyn campus are significantly longer than wait times for existing patients. During 2004, the guideline of 80% for new patients was not met for more than half of the major clinical services. For existing patients, the wait time guideline of 95% was met for all but two clinical services. Table 4 indicates average percentage wait time measures for both new and existing patients for 2004. An analysis was not made of the reason why the wait times did not meet guidelines as it was outside the scope of this study.

Table 4: Average Percent Wait Time Measures for 2004 - Brooklyn Campus
Note: Yellow indicates the wait time standard was not met

Primary DSS Stop Name	Wait % Between 0-30 days New Patients[8]	Wait % Between 0-30 days Existing Patients[9]
(322) WOMEN'S CLINIC	53%	93%
(323) PRIMARY CARE/MEDICINE	72%	97%
(350) GERIATRIC PRIMARY CARE	29%	77%
(123) NUTRITION/DIETETICS-INDIVIDUAL	73%	97%
(201) PHYSICAL MED & REHAB SVC	95%	99%
(202) RECREATION THERAPY SERVICE	x	100%
(203) AUDIOLOGY	79%	99%
(204) SPEECH PATHOLOGY	100%	100%
(205) PHYSICAL THERAPY	99%	100%
(206) OCCUPATIONAL THERAPY	100%	100%
(301) GENERAL INTERNAL MEDICINE	92%	97%
(303) CARDIOLOGY	76%	99%
(304) DERMATOLOGY	93%	98%
(305) ENDO/METAB (EXCEPT DIABETES)	28%	98%
(306) DIABETES	95%	99%
(307) GASTROENTEROLOGY	72%	96%
(308) HEMATOLOGY	90%	98%
(310) INFECTIOUS DISEASE	87%	99%
(312) PULMONARY/CHEST	37%	95%
(313) RENAL/NEPHROL(EXCEPT DIALYSIS)	21%	97%
(314) RHEUMATOLOGY/ARTHRITIS	75%	99%
(315) NEUROLOGY	69%	97%
(316) ONCOLOGY/TUMOR	92%	98%
(317) COUMADIN CLINIC	97%	100%

[8] New patient wait time standard is 80% between 0-30 days of desired appointment date.

[9] Existing patient wait time standard is 95% between 0-30 days of desired appointment date.

Primary DSS Stop Name	Wait % Between 0-30 days New Patients[8]	Wait % Between 0-30 days Existing Patients[9]
(321) GI ENDOSCOPY	x	97%
(401) GENERAL SURGERY	98%	99%
(403) ENT	58%	97%
(404) GYNECOLOGY	92%	99%
(407) OPHTHALMOLOGY	60%	97%
(408) OPTOMETRY	37%	97%
(409) ORTHOPEDICS	94%	97%
(411) PODIATRY	86%	98%
(414) UROLOGY	30%	95%
(415) VASCULAR SURGERY	89%	
(420) PAIN CLINIC	85%	99%
(502) MHC-Ind	92%	100%
(509) MD-Ind	96%	99%
(510) Psychology-Ind	100%	99%
(513) SUB ABUSE – IND	x	100%
(523) Opioid Substitution	100%	100%
(540) PTSD TEAM (PCT) – IND	54%	

Note: x indicates that data was not available or that the service is not provided at Brooklyn.

Manhattan Campus

Wait times for new patients at the Manhattan campus are significantly longer than wait times for existing patients. During 2004, the guideline of 80% for existing patients was not met for more than half of the clinical services. For existing patients, the wait time guideline of 95% was met for all but one clinical service.

Table 5 indicates the average percentage wait time measures for both new and existing patients for 2004. An analysis was not made of the reason why the wait times did not meet guidelines.

Table 5: Patient Wait Times - Manhattan Campus

Note: Yellow indicates the wait time standard was not met

Primary DSS Stop Name	Wait % Between 0-30 days New Patients[10]	Wait % Between 0-30 days Existing Patients[11]
(323) PRIMARY CARE/MEDICINE	62%	97%
(350) GERIATRIC PRIMARY CARE	68%	99%
(123) NUTRITION/DIETETICS-INDIVIDUAL	76%	99%
(201) PHYSICAL MED & REHAB SVC	87%	99%
(203) AUDIOLOGY	96%	100%
(204) SPEECH PATHOLOGY	100%	100%
(205) PHYSICAL THERAPY	92%	100%
(206) OCCUPATIONAL THERAPY	99%	100%
(301) GENERAL INTERNAL MEDICINE	96%	100%

[10] New patient wait time standard is 80% between 0-30 days of desired appointment date.

[11] Existing patient wait time standard is 95% between 0-30 days of desired appointment date.

Primary DSS Stop Name	Wait % Between 0-30 days New Patients[10]	Wait % Between 0-30 days Existing Patients[11]
(303) CARDIOLOGY	70%	97%
(304) DERMATOLOGY	77%	99%
(305) ENDO/METAB (EXCEPT DIABETES)	25%	95%
(306) DIABETES	81%	100%
(307) GASTROENTEROLOGY	27%	95%
(308) HEMATOLOGY	58%	95%
(310) INFECTIOUS DISEASE	91%	98%
(312) PULMONARY/CHEST	54%	95%
(313) RENAL/NEPHROL(EXCEPT DIALYSIS)	47%	95%
(314) RHEUMATOLOGY/ARTHRITIS	39%	96%
(315) NEUROLOGY	52%	95%
(316) ONCOLOGY/TUMOR	95%	98%
(317) COUMADIN CLINIC	99%	99%
(321) GI ENDOSCOPY	x	98%
(401) GENERAL SURGERY	95%	98%
(403) ENT	39%	95%
(404) GYNECOLOGY	71%	94%
(406) NEUROSURGERY	87%	97%
(407) OPHTHALMOLOGY	49%	96%
(409) ORTHOPEDICS	54%	95%
(410) PLASTIC SURGERY	96%	99%
(411) PODIATRY	63%	98%
(413) THORACIC SURGERY	100%	
(414) UROLOGY	58%	95%
(415) VASCULAR SURGERY	42%	
(420) PAIN CLINIC	63%	98%
(502) MHC-Ind	67%	100%
(509) MD-Ind	76%	99%
(510) Psychology-Ind	73%	99%
(513) SUB ABUSE – IND	x	100%
(540) PTSD TEAM (PCT) - IND	73%	

Note: x indicates that data was not available or that the service is not provided at Manhattan.

Human Resources

The Brooklyn and Manhattan campuses combined employ approximately 2,867 full-yime employee equivalents (FTEEs). The Staten Island, Harlem, Chapel Street, and SoHo CBOCs employ approximately 46 FTEEs.

The Brooklyn and Manhattan campuses are in an urban area and do not have unusual difficulty recruiting most hospital staff. However, recruitment for RN, LPN, and CRNA positions has been especially difficult – this is characteristic of the competitive market for these clinicians. Also, it was reported that retention is not a major issue with the Brooklyn and Manhattan campuses.

Research and Education

The research and education programs at the Brooklyn and Manhattan campuses are some of the largest and most robust programs in the VA hospital system. Brooklyn and Manhattan collaborate with over 100 affiliates. The Manhattan campus' primary affiliate is New York University (NYU). The Brooklyn campus's primary affiliate is State University of New York (SUNY).

Research Programs

The Brooklyn and Manhattan campuses receive approximately $5.7 million in intramural funding and $10 million from affiliated schools and non-profit research corporations per year. The Brooklyn and Manhattan campuses operate 54 and 156 active protocols respectively. Eighty-one percent of the protocols are human studies, with the remainder being animal studies. For fiscal year 2005, 631 veterans were enrolled in research studies. The Manhattan campus is specifically noted for AIDS research. A very large volume of tissue/specimens are banked at the campuses. There are eight research protocols specific to human tissue. In addition, there are six pathology residents who rely on the human tissue program and autopsies (8-9% autopsy rate) for their training.

Education Programs

The SUNY and NYU graduate medical education programs at the Brooklyn and Manhattan campuses are vital to clinical care, teaching, and research. The Brooklyn campus had 119 medical residents, six dental residents and 173 medical students for fiscal year 2005. The Manhattan campus had 144 medical residents, 16 dental residents and 107 medical students for fiscal year 2005. The two campuses also combined to educate 45 allied health students for fiscal year 2005.

It is important to note that over their long histories, the SUNY campus has always been remote (about a 30-minute drive) from the Brooklyn campus, while the NYU camps has been a 5-10 minute walk from the Manhattan campus. Accordingly, any option that relocates the Brooklyn campus services to within a 30-minute drive of the SUNY campus could be said to have little impact on staff access times. Yet, any change to the Manhattan campus that moves the facility more than a short walk away is likely to have a dramatic impact on NYU's relationship. In addition, NYU has more potential alternate affiliates located close to its campus.

Local Healthcare Market

The population of New York City, NY is supported by multiple community healthcare providers. The six largest health systems in New York City are New York-Presbyterian Healthcare System (NYPHS), North Shore-Long Island Jewish Health System (North Shore-LIJ), New York City Health and Hospitals Corporation (HHC), Continuum Health Partners, Saint Vincent Catholic Medical Centers, and The Mount Sinai Medical Centers. These six health systems account for 52% of the New York City market share, and HHC is the largest municipal health system in the

United States.[12] Other notable health systems in the New York City market include: Montefiore Medical Center, NYU Medical Center, Pinnacle Healthcare, Catholic Health Services of Long Island, Cabrini Medical Center, Lenox Hill Hospital, and Memorial Sloan-Kettering Cancer Center.[13]

The financial condition of hospitals in the greater New York City healthcare market is among the worst in the nation. Since 2002, ten local hospitals have closed or are in the process of closing. Two hospitals have declared bankruptcy in the last year, including Saint Vincent Catholic Medical Centers. The state's Commission on Health Care Facilities in the 21st Century has been charged with assessing which hospitals should close. Recommendations from the 18-member commission are expected at the end of 2006, with implementation planned for completion by 2008.[14]

New York-Presbyterian Healthcare System (NYPHS)

NYPHS is a nonprofit health system consisting of hospitals, specialty institutes, and continuing care centers that provide services to Manhattan, Brooklyn, Queens, and the Bronx, as well as Westchester, Long Island, New Jersey, Connecticut and several upstate New York counties. In all, NYPHS accounts for 12% of the New York City area's total inpatient discharges, accounts for 10% of licensed inpatient beds, and houses 4,566 beds in 12 hospitals, all of which are academic affiliates of Columbia University College of Physicians and Surgeons and Weill Medical College of Cornell University.[15]

North Shore-Long Island Jewish Health System (North Shore –LIJ)

North Shore-LIJ also accounts for 12% of total inpatient discharges for New York City. The nonprofit health system consists of three tertiary-care facilities that provide services to Long Island, Queens, and Staten Island. Like NYPHS, North Shore-LIJ also accounts for 10% of licensed inpatient beds, but North Shore-LIJ houses 4,328 beds in 13 hospitals. New York University School of Medicine and Albert Einstein College of Medicine use North Shore University Hospital and Long Island Jewish Medical Center as academic campuses, respectively, and Staten Island University Hospital North is a teaching hospital affiliated with SUNY Health Science Center at Brooklyn.[16]

[12] *HealthLeaders-InterStudy Market Overview: New York, New York.* July 2005.

[13] Ibid.

[14] Ibid.

[15] Ibid.

[16] Ibid.

New York City Health and Hospitals Corporation (HHC)

HHC is the public health system for New York City and accounts for 11% of New York City's total inpatient discharges, making it the third largest health system in the area.[17] The nonprofit health system consists of 11 acute care hospitals, six diagnostic and treatment centers, four nursing home facilities, a certified home healthcare agency, and more than 80 community health clinics, including Communicare Centers and Child Health Clinics.[18] In all, HHC houses 4,915 beds that provide services to all of New York City.[19]

Continuum Health Partners

Continuum Health Partners was formed by the 1997 merger of Beth Israel Medical Center and St. Luke's-Roosevelt Hospital Center. Continuum is comprised of six acute-care hospitals with 2,671 beds. Beth Israel Medical Center is a teaching hospital for the Albert Einstein College of Medicine, and St. Luke's is a teaching hospital for the Columbia University College of Physicians and Surgeons. The health system includes centers of excellence in cardiology, oncology, neuroscience, and orthopedics/sports medicine. Continuum accounts for 7% of the New York City area's total inpatient discharges and 6% of licensed inpatient beds.[20]

Saint Vincent Catholic Medical Centers

Saint Vincent Catholic Medical Centers is comprised of six acute-care hospitals in New York City. The system was formed in 2000 through the merger of Catholic Medical Centers of Brooklyn and Queens, St. Vincent's Hospital and Medical Center in Manhattan, and Sisters of Charity Healthcare on Staten Island, which brought Bayley Seton Staten Island and St. Vincent Staten Island into the affiliation. Saint Vincent Catholic Medical Centers is sponsored by the Catholic Diocese of Brooklyn and by the Sisters of Charity of New York. Saint Vincent Catholic serves as the academic medical center of New York Medical College in New York City. The system accounts for 6% of the New York City area's total inpatient discharges and 6% of licensed inpatient beds.[21]

The Mount Sinai Medical Center

The Mount Sinai Medical Center is one of the nation's oldest and largest voluntary teaching hospitals. The Mount Sinai Hospital has 1,062 beds which accounts for 3% of licensed inpatient beds in New York City. The health system accounts for 4% of the New York City area's inpatient discharges. [22]

[17] Ibid.

[18] http://www.nyc.gov/html/hhc/html/about/faq.shtml

[19] *HealthLeaders-InterStudy Market Overview: New York, New York.* July 2005.

[20] Ibid.

[21] Ibid

[22] Ibid.

Montefiore Medical Center

Montefiore Medical Center serves a niche market in the Bronx and southern Westchester County. It is the university hospital and academic medical center for the Albert Einstein College of Medicine, and has centers of excellence in cardiology and cardiac surgery, cancer care, tissue and organ transplantation, children's health, women's health, and surgery. The 1,119-bed health system account for 3% of the New York City region's total hospital discharges and 3% of licensed inpatient beds.[23]

NYU Medical Center

NYU Medical Center is one of the nation's premier centers of excellence in healthcare, scientific research, and medical education. The 883-bed nonprofit health system accounts for 2% of the New York City area's inpatient discharges and 2% of licensed beds.[24]

Other Area Health Systems and Hospitals

- Pinnacle Healthcare is a managed care contracting provider network composed of six affiliated hospitals in Westchester County.
- Catholic Health Services of Long Island is comprised of five acute-care hospitals.
- Cabrini Medical Center is a 676-bed center in Manhattan. It lost $2 million in 2003, and in 2005 it was announced that it was in discussions with The Mount Sinai Medical Center (with which it is affiliated) about transforming the acute-care hospital into a long-term, acute-care facility
- Lenox Hill Hospital is a 616-bed hospital on Manhattan's affluent Upper East Side. It is a major teaching affiliate of NYU Medical Center.
- Memorial Sloan-Kettering Cancer Center consists of a 514-bed cancer hospital in Manhattan's Upper East Side with several outpatient centers throughout the area.[25]

Current Facilities and Property

Brooklyn Campus

Location

The Brooklyn campus is located at 800 Poly Place in the Bay Ridge section of the borough of Brooklyn, also known as Kings County, in New York City.

[23] Ibid.

[24] Ibid.

[25] Ibid.

Size and Shape

The rectangular-shaped Brooklyn campus is located on 17.1 acres of land. Originally part of Fort Hamilton, the land was transferred to VA from the U.S. War Department in 1945. The property is bordered on the south, east, and west by Fort Hamilton/MacArthur Road and on the north by Poly Place. Figure 2 provides an aerial photograph of the Brooklyn campus.

Street and Off-Site Improvements

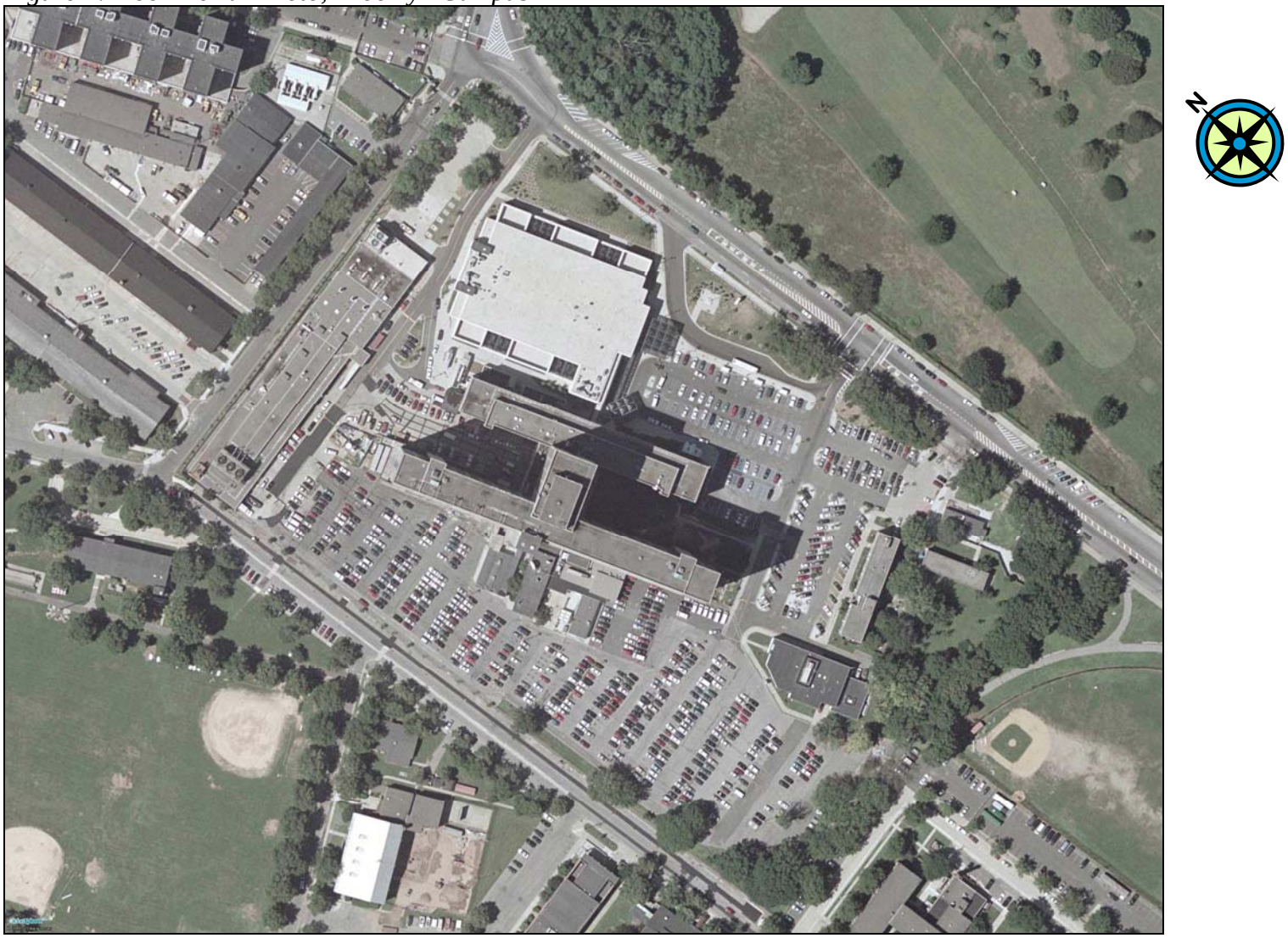
Poly Place, a four-lane local road with curbside parking, is the primary means of accessing the site. 7th Avenue intersects Poly Place and provides access to the site from the north. 14th Avenue intersects Poly Place on the east, and also provides local road access from the north and east. Poly Place was formerly referred to as the Cropsey Avenue Extension.

Title Policy and Easement

A complete title survey of the property was not available at the time of this report. However, Team PwC did review documents provided by VA detailing the site's history. The existing campus is located on a section of 56.5 acres of land that was initially acquired through eminent domain in 1891 from the Dyker Meadow Land and Improvement Company for use by the U.S. War Department. Of the 56.5 acres, 17.1 acres were subsequently transferred from the U.S. War Department to the VA in 1945. Given the lack of a title survey, it is unclear whether deed restrictions or eminent domain law statutes prohibit the categories of future uses that can be placed at the site.

In 1951, a 1,078-foot long and 35- to 47-foot wide strip of land bordering Poly Place (formerly the Cropsey Avenue Extension) was transferred to VA from the city. As per the transfer agreement, the strip is to be used for access road purposes only and will revert to the city should it be used in any other manner. The City of New York has a permanent easement for maintenance and operation of a 12-inch water main located within the boundaries of the strip. Team PwC's evaluation of the lease documents is based on information provided by VA. Additional information, such as the results of a formal title search, has not been provided to Team PwC and, as such, is not evaluated in the analysis.

Figure 2: 2004 Aerial Photo, Brooklyn Campus



Adjacent Use

North:
The north side of the campus is bordered by the city-owned Dyker Beach Public Golf Course (bounded by Poly Place on the south, 14th Avenue on the east, 7th Avenue on the west, and 86th Street on the north).

South:
The Fort Hamilton military installation borders the southern edge of the campus.

East:
The city-owned Dyker Beach Park is east of the campus.

West:
Fort Hamilton also borders the western side of the campus.

Access and Visibility

The Brooklyn campus can be accessed via several regional highways. The Brooklyn Queens Expressway (Interstate 278) is approximately 0.5 miles from the campus, while the Belt Parkway is approximately 0.6 miles away. Access to Staten Island and New Jersey is provided via the Verrazano-Narrows Bridge. Since the main hospital building is the tallest building in the neighborhood, there is good visibility to the site from all points.

The site can be directly accessed from either 14th or 7th Avenues. The site is accessible via public transportation. There is currently a New York City MTA bus stop located at the northern edge of the facility. MTA buses that service this stop currently turn into a cul-de-sac that is on part of the campus property. The "95th Street/Fort Hamilton" subway stop on the R train, located at the intersection of 95th Street and 4th Avenue, is approximately two-thirds of a mile away from the site.

Site and Adjacent Zoning

The Brooklyn campus is exempt from the New York Zoning ordinance owing to its status as federally-owned land. The surrounding neighborhood is zoned residential to the east and the area to the north lies primarily within R-4 zoning districts, although some areas are zoned R-6. The campus is surrounded by a small city park to the east (Dyker Beach Park), the Dyker Beach Public Golf Course to the north, and Fort Hamilton, a federal military installation, to the south.

Improvement Description

The Brooklyn campus consists of 12 buildings, including the main hospital facility in Building 1, which was built in 1950. The most recent addition is the outpatient clinic completed in 2000. Currently on the campus there are approximately 800 surface parking spaces.

Several floors in Building 1 are currently undergoing renovation to ensure compliance with federal ADA and patient privacy statutes. Additional detail on the renovation schedule is provided in the section below entitled "Detailed Building Description." Figure 3 presents a site plan for the Brooklyn campus. A list of the buildings on campus, their size, and function are presented in Table 6.

Overall, the campus is in good condition due to generally consistent maintenance since their original construction as well as modernization upgrades in certain areas. Buildings range in functionality scores from 2 to 5, with the majority in the 4 to 5 range (on a scale of 1 to 5) for critical values such as accessibility, code, functional space, and facility conditions[26]. In general, the buildings scored well (scores of 4-5) on code (life safety) and accessibility, and better than average (score of 4) on layout and adjacency. Some scores for patient privacy, however, are average (score of 3). Upgrades to comply with current VA standards and applicable building codes will be necessary even on the buildings that rate relatively high on codes since the rating covers only life safety code issues and not issues such as single bed rooms, private bathrooms accessible from within a patient room, and other quality of healthcare environment issues.

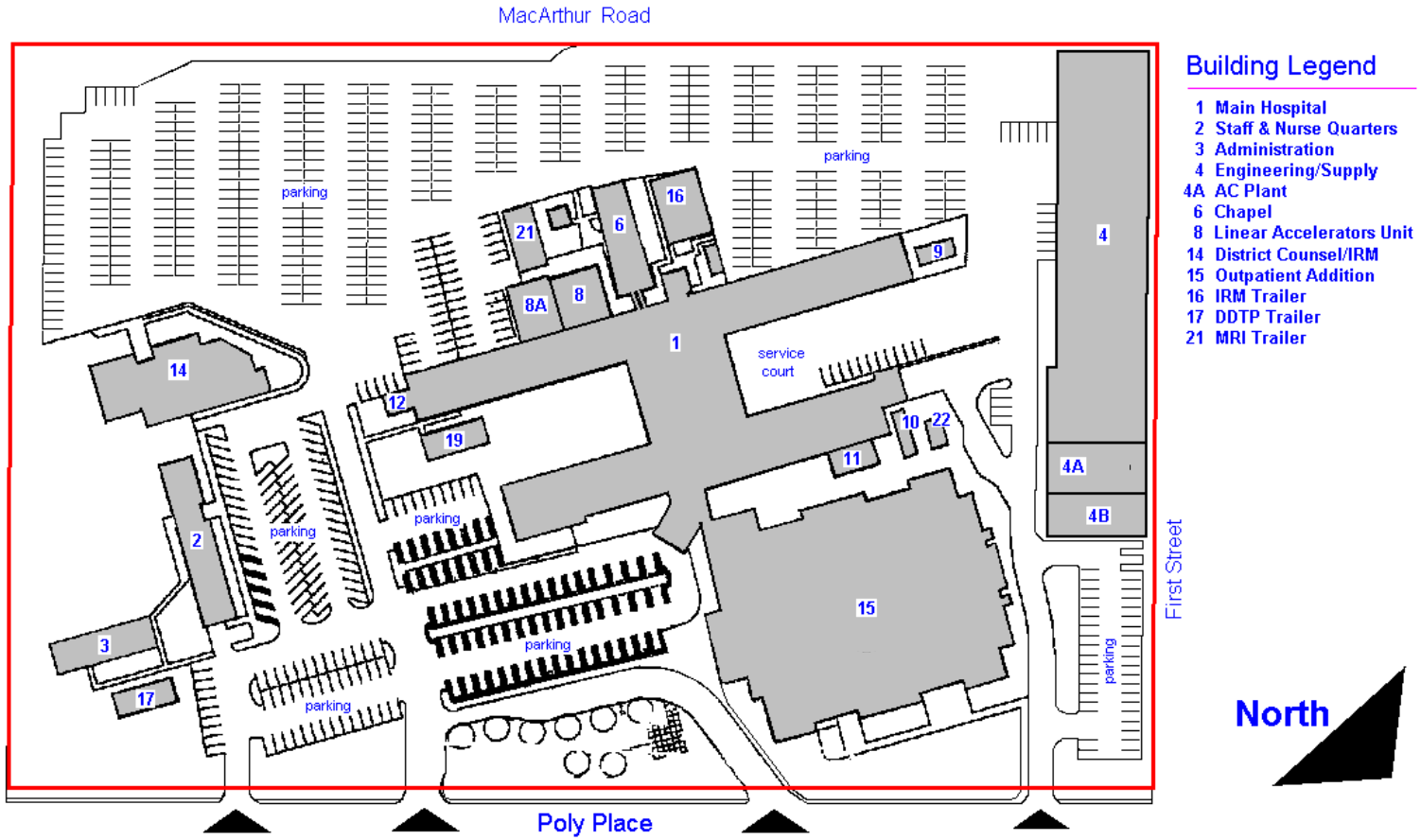
Building 3 is currently vacant and is scheduled for demolition. The cleared site is expected to be the location of a new Fisher House, which would offer temporary housing accommodations for long-term oncology patients as well as their families. Preliminary plans indicate that the new facility will be able to accommodate up to seven patients and families at a given time. No timeline has yet to be established for demolition of the existing building and construction of the new one.

The Brooklyn campus also houses the central information technology infrastructure for the entire New York market. This network is maintained in an on-site facility, Building 14, which is separate from the main hospital.

None of the buildings or structures at the Brooklyn campus are designated as historic on the National Historic Register.

[26] VA Capital Asset Inventory Database.

Figure 3: Site Plan for Brooklyn[27]



[27] Building site map and legend provided by VA.

Table 6: Existing Departmental Distribution by Building – Brooklyn[28]

Building	Floor	Function	Year Built	Year Renovation	Floors	Building Total GSF
1		Main Hospital	1950		22	690,570
	Basement	Support/Logistics				
	Ground	ER- Urgent Care/Observation; Administration Offices; Support/Logistics				
	1	Outpatient Clinics; Offices; Support				
	1	OP Clinics; Offices; Support				
	3	Pathology; Medical Research and Development; Support				
	4	HOPTEL Beds; Surgical Services; Offices				
	5	Primary Care; Offices; Support				
	6	Medical Administration; Support/Logistics				
	7	Primary Care; Nursing Administration; Support				
	8	OP Clinics; Medical Beds; Offices; Support				
	9	Primary Care; Offices; Support/Logistics				
	10	OP Clinics; Support; Medical Research and Development				
	11	MICU Beds (Medical ICU); SICU (Surgical ICU) Beds				
	12	Rehab Beds; Medical Beds; Offices; Support/Logistics				
	13	Adult Day Care; OP Clinics; Offices; Support/Logistics				
	14	OP Clinics; Offices; Support/Logistics				
	15	Behavioral Health Medicine and Beds/Support; Inpatient Psych Beds				
	16	Mental Health Clinics; OP Clinics; Offices; Support/Logistics				
	17	Mechanical				
	18	Mechanical				
	19	Mechanical				
	20	Mechanical				
2		Staff & Nurse Quarters	1950		4	21,880
3		Administrative/Fiscal	1950		2	5,240
4		Engineering/Supply	1950		2	48,500
6		Chapel	1960		1	8,352
8		Linear Accelerator Unit	1972		1	5,892
14		District Counsel/IT	1991		2	17,166
15		Outpatient Addition	2000		3	142,930
16		IRM Trailer	1988		1	2,880
21		MRI Trailer	1995		1	1,680

[28] VA Capital Asset Inventory (CAI) database

Building	Floor	Function	Year Built	Year Renovation	Floors	Building Total GSF
4A		AC Plant	1971		1	8,299

Detailed Building Description

Main Hospital and Adjacent Facilities – Building 1

Building 1 is the main hospital building at the Brooklyn campus. Constructed in 1950 as a steel moment frame building with partially restrained moment connections, the building can be described as an "H-shaped" structure and has overall plan dimensions of approximately 490 feet by 181 feet. The building is 22 stories high, including the basement and ground level floors. The top four stories (floors 17 through 20) are used for mechanical equipment. Floors one through 16 are generally 24,000 square feet in size each and are each divided into a north, east, and west ward. The gross building area is approximately 691,000 square feet. A small kitchen is located in Building 1. However, food is not actually prepared on-site but is instead delivered to the Brooklyn campus from the VA facility located in St. Albans in Queens, New York, which provides laundry and cook-chill services to the entire VISN.

In order to ensure compliance with federal patient privacy, American with Disabilities Act (ADA), and other regulations, the Brooklyn campus has undertaken an extensive program to renovate many of the floors in the main hospital. The 12th floor became the first to undergo renovation, and, since that renovation, the 6th, 7th, 8th, and 15th floors have been modernized as well. The renovated 6th floor is a model of how floors that are renovated in the future will be configured to offer wider and more open corridors.

Approximately 17,000 square feet of space is currently vacant in the building. The two largest areas of vacant space are Ward 13 West and Ward 15 East.

Several single-story buildings are located behind Building 1. These buildings include the linear accelerator unit (Building 8/8A), the information resources management (IRM) trailer (Building 16), the MRI Trailer (Building 21) and the chapel (Building 6). Building 6 was built in 1960 and has a masonry-steel frame construction. Building 8 was built in 1972 and has a concrete vault construction. Another concrete vault, as well as a steel-frame extension containing space for administrative offices, was later added to Building 8. Building 16 is a modular trailer that currently houses the Drug Dependency Treatment Unit (DDTU).

Outpatient Clinic - Building 15

Constructed in 2000, the outpatient clinic is the most recent addition to the campus. It is a three-story structure that is roughly rectangular in shape. However, it should be noted that the building was designed to accommodate an additional two stories if necessary. The gross building area is approximately 143,000 square feet. Building 15 is connected to the main hospital building on

the first and ground floor levels. Primary access to the building is through the main entrance for the main hospital.

Engineering Plant – Building 4/4A

Building 4 is the home of the engineering administrative offices. Constructed in 1950 along with the main hospital, the steel-frame building is two stories high and has a gross building area of 48,500 square feet. Access to the building is limited to several non-descript doors and loading bays. The primary uses on the second story include administrative offices and conference rooms.

Building 4A is an extension to Building 4 that was added in 1971. The steel-frame building is a single-story structure, has a gross building area of approximately 8,300 square feet, and houses the air conditioning (A/C) and heating plant for the entire campus. The building also has limited access points and would require significant remediation were it to be used for purposes other than housing the campus A/C plant.

IT and Regional Counsel Offices – Building 14

Building 14 is the home of the data center for all of the markets that comprise VISN 3. Constructed in 1991, the two-story building has a gross building area of approximately 17,000 square feet. In addition to housing the IT infrastructure, the building also houses the administrative offices of the VA Regional General Counsel. Given its primarily IT use, the building has several modern HVAC systems that are necessary for server storage rooms, as well as redundant power supplies for backup purposes. The building is one of the more modern ones on the campus and is in good condition.

Staff and Nurse Quarters – Building 2

Building 2 is currently used to house hospital staff. Both apartments and dorm-like accommodations are provided. Constructed in 1950, the four-story building has a concrete-column construction and has a gross building area of approximately 22,000 square feet. The building is located on the eastern edge of the campus. The facility is generally outmoded and has significant infrastructure deficiencies.

Mental Health Clinic - Chapel St

VA currently leases 24,500 square feet at Chapel Street in Brooklyn. The purpose of the facility is to provide outpatient mental health services.

Recent and Planned Capital Improvements

An objective of the CARES study is to define space requirements for 2023. Most building components have a finite life expectancy and require cyclical repair or replacement. Items which will require attention between the present date and the design year include those shown in Table 7.

Table 7: Building Components Requiring Attention

Component	Maintenance Cycle
Windows/Doors	30 years
Masonry	50 years
Roofing Membrane	15 years
Interior Finishes	10 years
Major Medical Equipment	5-10 years
Heating Systems	25 years
Cooling Systems	20 years
Plumbing Fixtures	20 years
Electrical Switchgear/Panels	40 years
Lighting	20 years
IT/Communications	7 years

Safety issues related to capital planning are limited to fire and life safety (building code) issues. The projected model includes factors that accommodate current building code and interpolated departmental requirements. Existing conditions are typically permitted to remain; current code compliance is typically triggered by a major renovation project.

For the purposes of this planning exercise, it is assumed that the first funding cycle for a new project would occur after January 2009. Subsequently, the design and construction of any significant capital project could not be completed until 2012, assuming 12 months for design and 24 months for construction.

Buildings identified as being vacated or mothballed will not support any occupancy; however, some utilities, including mechanical, electrical, and plumbing (MEP) systems, will remain activated in order to maintain their physical condition.

The capital options were derived utilizing the above parameters, and include criteria for a safe, modern, and secure healthcare environment.

Current and Forecast Investment Requirements

Brooklyn's current facility condition assessment includes corrective action to the campus as follows:

- General site repairs such as repairing roads, parking, landscaping, site utilities and asbestos abatement are at a replacement cost of $18.9 million
- Additional correction costs for buildings listed in the CAI are $25.2 million. $23 million of the costs are for repairs to Building 1, which include architectural, electrical, mechanical, plumbing, and transport system corrections.

Summary of Current Surplus /Vacant Space

The urban Brooklyn campus fully utilizes its current site. The CAI database indicates that there is currently 23,610 square feet of vacant building space on the campus.

Outleased Areas

Currently, the Brooklyn campus has several spaces that are leased to private entities as part of "enhanced sharing" agreements. These agreements are effectively outleases in that the users pay annual rent on a given space for a contracted term. A total of 770 square feet of space is currently leased out to users through "enhanced sharing" agreements.

In addition to "enhanced sharing" agreements, approximately 18,500 square feet of space is occupied by VA and other government users. The arrangements for these spaces do not typically involve rent payments. A summary of the outleases is shown in Table 8.

Table 8: Outleases and Agreements - Brooklyn Campus

Bldg. #	Bldg. Name	Floor	Sq. Ft.	Leased To	Expiration w/ Options
Non-Brooklyn Campus Government Leases					
1	Main Hospital	2	700	VISN Offices	N/A
1	Main Hospital	4	600	DoD Treatment	N/A
1	Main Hospital	5	885	Resident Engineers	N/A
1	Main Hospital	5	130	VISN Offices	N/A
14	VA Regional Counsel	1	4,520	VA Regional Counsel	N/A
14	VA Regional Counsel	2	8,260	VA Regional Counsel	N/A
14	VA Regional Counsel	1	3,000	VISN IRMA Office	N/A
15	Outpatient Addition	G	418	VBA Regional Office	N/A
	Total		**18,513**		
Enhanced-Sharing/Outleases					
1	Main Hospital	Rooftop	720	Traffic cameras used by MetroChannel, LLC	4/30/13
1	Main Hospital	7	50	Central Michigan University – Conference Room	6/30/06
	Total		**770**		

Manhattan Campus

Location

The Manhattan campus is located at 423 East 23rd Street on the east side of the Borough of Manhattan in New York City. The campus occupies Block 955, Lot 5 on the New York City tax lot map.

Size and Shape

The rectangular-shaped Manhattan campus is located on 6.43 acres of land. The property is bordered by East 25th Street on the north, Asser Levy Place on the east, East 23rd Street on the

south, and 1st Avenue on the west. Figure 4 provides an aerial photograph of the Manhattan campus.

Street and Off-Site Improvements

East 23rd Street is a major four-lane, east-west arterial road that runs from the Franklin D. Roosevelt Drive in the eastern portion of Manhattan to the West Side Highway in the western portion. Curbside parking restrictions prohibit parking on the street along certain sections.

Asser Levy Place is a small two-lane road with parking on both sides. It is bordered on the east by the city-owned and operated Asser Levy Recreation Center.

Title Policy and Easement

A complete title survey of the property was not available at the time of this report. Documents detailing the site's history provided by VA have been reviewed. The existing campus is located on 6.43 acres of land that was initially acquired through the condemnation of 20 privately owned parcels of land. In 1950, the City of New York later conveyed to VA the section of East 24th Street formerly located between 1st Avenue and Asser Levy Place/Avenue A. Given the lack of a title survey, it is unclear whether deed restrictions or eminent domain law statues govern the categories of future uses that can be placed at the site.

Team PwC's evaluation of the lease documents is based on information provided by VA. Additional information, such as the results of a formal title search, has not been provided to Team PwC and, as such, has not been evaluated as part of this analysis.

Adjacent Use

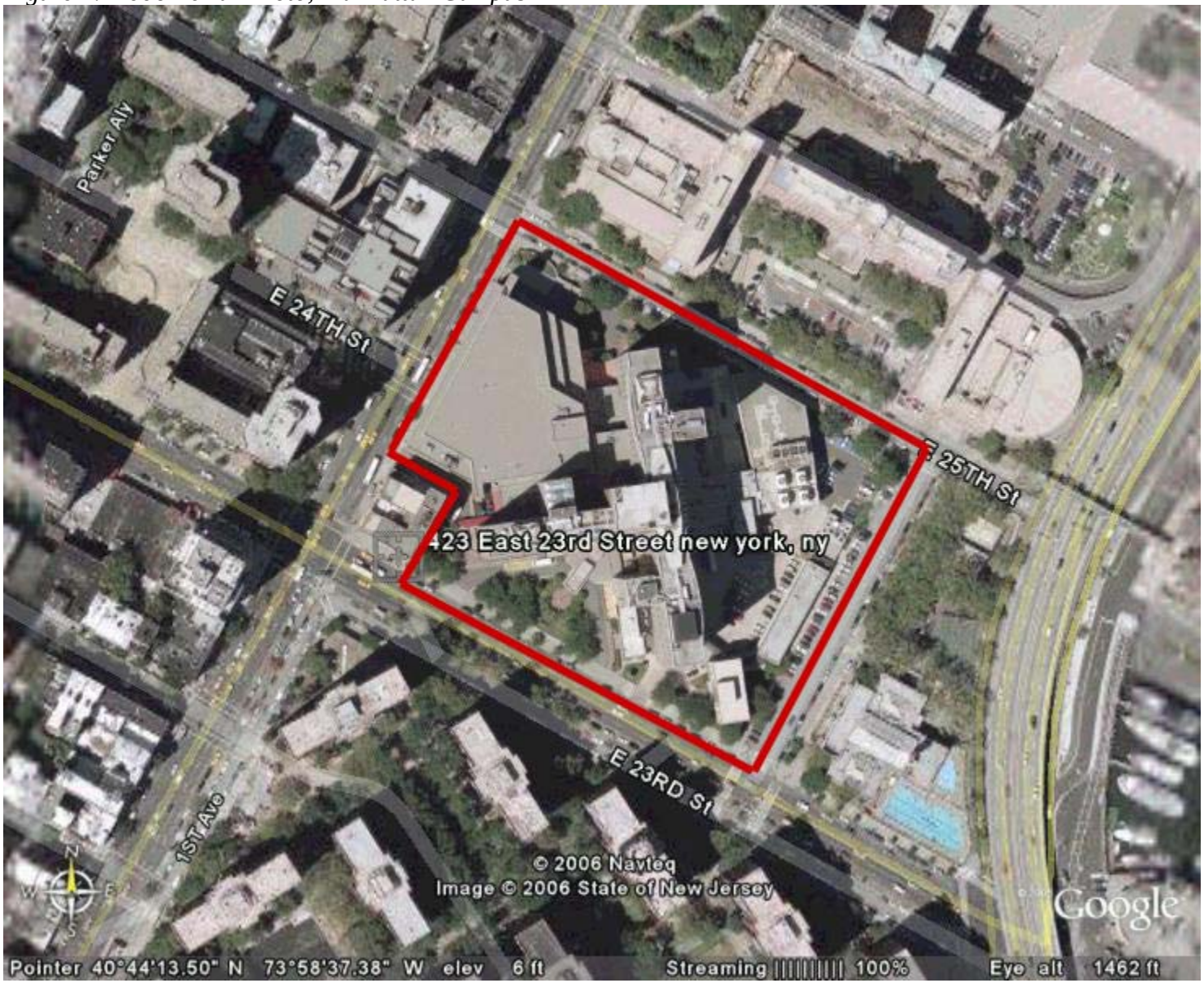
North
The northern side of the Manhattan campus is bordered by medical (e.g., Bellevue Medical Center) and academic (e.g., Hunter College, New York University Medical Center) institutions.

South
An apartment complex borders the campus to the south.

East
A recreation center and highway border the campus to the east.

West
An apartment complex and commercial buildings border the campus to the west.

Figure 4: 2006 Aerial Photo, Manhattan Campus



Access and Visibility

The Manhattan campus has direct access to the Franklin D. Roosevelt Drive, which runs one block east of the site and has an exit at 23rd Street. The subject property's 19-story height is generally consistent with the other high-density building types that dominate the area. Moreover, the facility's visibility is enhanced by the fact that it entirely occupies the block on which it is located.

The site can be directly accessed from the main entrance on 23rd Street. The site is also accessible via many modes of public transportation. Bus stops for routes that run east and west are located at the intersection of 1st Avenue and E. 23rd Street. The "23rd Street" subway stop on the 6 train, located at the intersection of East 23rd Street and Park Avenue, is four blocks west of the site. West of Park Avenue there are many more subway lines leading to all locations throughout New York City, including regional transportation hubs such as Penn Station and Grand Central Terminal.

Site and Adjacent Zoning

The Manhattan campus is exempt from the New York Zoning ordinance owing to its status as federally-owned land. The surrounding neighborhood is zoned residential, with the campus located in an R-8 district specifically. However, there are several low-density commercial zones interspersed throughout the buildings adjacent to the site that permit mostly-ground floor commercial uses. The campus is surrounded by Bellevue Medical Center to the north, the Asser Levy Recreation Center to the east, the Peter Cooper Village/Stuyvesant Town apartment complexes to the south consisting of 110 buildings, and the NYU Dental School, as well as several high-rise apartments, to the west.

Improvement Description

The Manhattan campus consists of six buildings, including the main hospital facility in Building 1. The area surrounding the main campus entrance on East 23rd Street is lightly landscaped. Currently, there are approximately 67 surface parking spaces and additional parking under Building 5 that are designated for staff with the few exceptions that are for handicapped veterans/visitors. The buildings within the facility were constructed over a period of several years beginning in the early 1950s, with the most recent addition being the 1992 addition of the outpatient clinic. Unlike the Brooklyn campus where the buildings are more dispersed, the facilities at the Manhattan campus are all interconnected via above-ground walkways. Figure 5 presents a site plan for the Manhattan campus. A list of the buildings on campus, their size, and function are presented in Table 9.

Figure 5: Site Plan for Manhattan

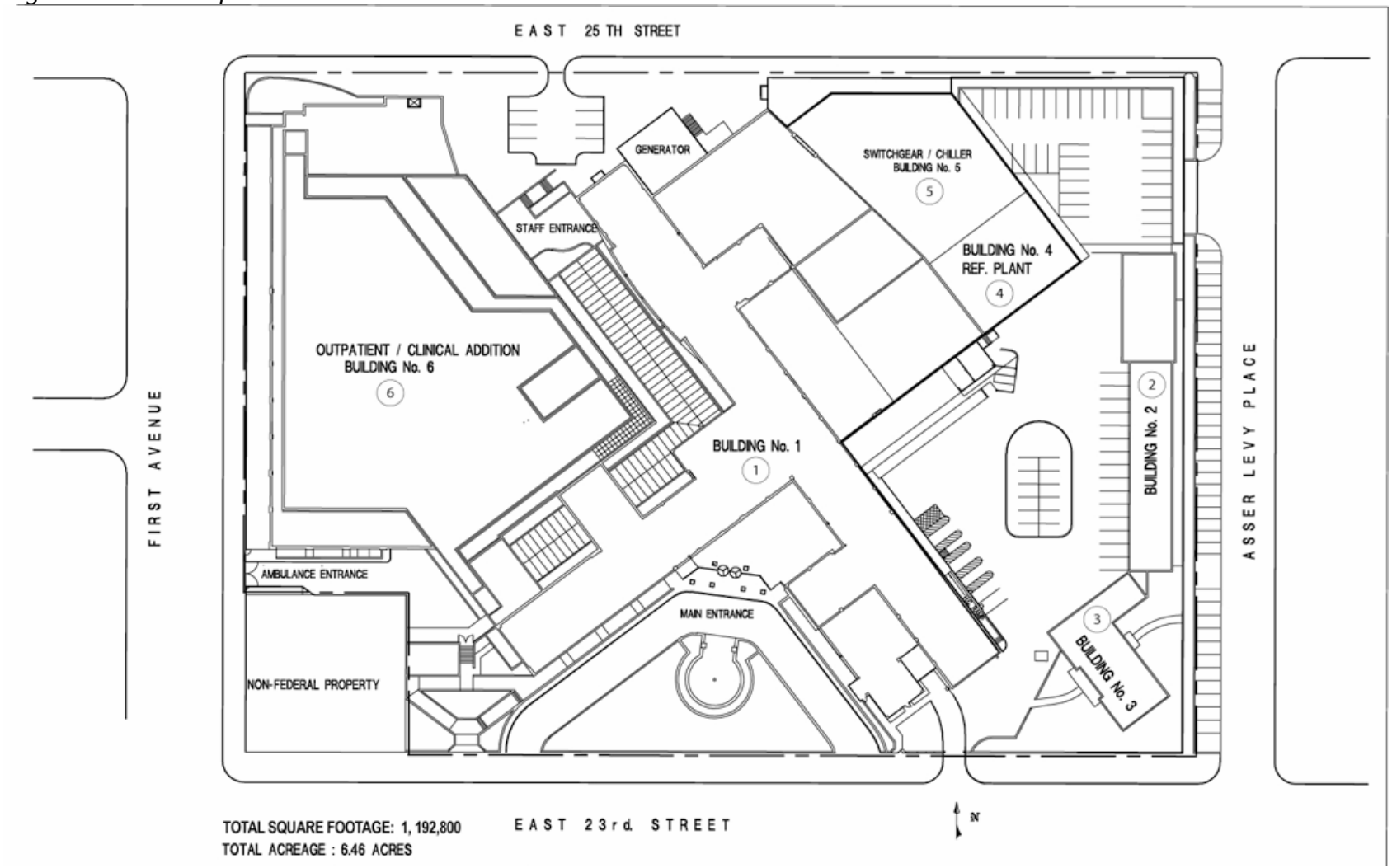


Table 9: Existing Departmental Distribution by Building – Manhattan[29]

Building	Floor	Function	Year Built	Year Renovation	Floors	Building Total GSF
1		Main Medical Center	1954	1992	19	789,410
	Ground	Support/Logistics				
	1	Pharmacy; Offices; Support				
	2	Dental Clinic; Offices; Support				
	3	Administrative Offices; Support				
	4	Surgical Beds; Surgical Offices; Surge Ward; Support				
	5	OP Clinics; Support				
	6	Clinical Lab; Outleased Space to NYU; Support				
	7	Neurology Clinics; Rehab Clinics; Human Resources; Support				
	8	Rehab Beds; OP Clinics; Offices				
	9	Offices; Support				
	10	Medical Ward; HOPTEL; Ambulatory Surgery; Out leased to NYU				
	11	MICU Beds; CCU Beds; GI Clinics; Medical Offices				
	12	Cardiology; Radiation Therapy; Support; Medical Research and Development				
	13	Medical/Neuro/Rehab Beds; Respiratory Care; Medical Research and Development				
	14	Offices/ Support				
	15	Swing Ward; Outleased Space to NYU				
	16	Offices; Medical Research and Development; Support				
	17	Mental Health/Behavioral Health Bedsl; Offices; Support				
	18	Medical Research and Development; Support				
	19	Mechanical				
2		Annex-Facility Management	1954		3	17,150
3		Quarters, Personnel	1954		7	26,590
4		A/C Plant	1969		1	4,750
5		Electrical Distribution Plant	1990		1	10,870
6		Clinical Addition	1992		5	344,030
	Ground	Primary Care Clinics; Support/Logistics	1992			
	1	Primary Care Clinics; 23 hour Observation Beds; Admitting; ER; Auditorium; Support	1992			
	2	Specialty Care Clinic; OP Clinics; Offices; Dining	1992			
	3	SICU Beds; OR Suite; Offices	1992			
	4	Nuclear Medicine; Radiology	1992			

[29] VA Capital Asset Inventory (CAI) database

All buildings used for patient care and administration are in fair to good condition. The good building conditions at the main facility, Building 1, are largely due to an extensive series of capital improvements completed within the past decade. Other ancillary buildings, such as those used for maintenance or storage purposes are in generally good condition.

According to the CAI database, all of the buildings have received ratings between 3 and 5 on a scale of "5" for critical values such as layout, adjacency, life safety code, accessibility, and privacy.[30] Definitions of the ratings are as follows: "5" is best, "3" is average, and "1" is poor [31]. Generally, the buildings score well (4-5) on code (life safety) and accessibility, and average (3) on layout, adjacency, and patient privacy. Upgrades to comply with current VA standards and applicable building codes will be necessary even on the buildings that rate relatively high on codes since the rating covers only life safety code issues and not issues such as single bed rooms, private bathrooms accessible from within a patient room, and other quality of healthcare environment issues.

Although the campus owns and occupies most of the city block on which it is located, it does not own a small 99-foot by 80-foot lot that forms the southwest corner of the block. This lot is currently the site of a seven-story school for the handicapped.

None of the buildings or structures at the Manhattan campus are designated as historic on the National Historic Register.

Detailed Building Description

Main Hospital and adjacent facilities – Building 1

Building 1 is the main hospital building at the Manhattan campus. Constructed in 1954 and modified in 1992 to include a new front entrance, the "T-shaped" structure has a gross building area of approximately 789,000 square feet. The building is 20 stories high, including the ground level. Floor 19 is used for mechanical equipment.

Floors 4 through 18 have 34,000 square-foot floor plates on average and are each divided into a north, east, and west section/ward. Each ward is 40 feet wide on average, including an eight-foot wide hallway and 16-foot wide rooms/offices that are located on each side of the hallway. The ground floor as well as floors 1 through 3 have larger floor plates than do floors 4 through 18 due to the presence of an East Ward that extends out to the chiller plant/building. A 15,000 square-foot kitchen is located on the third floor. However, since all food operations for VISN 3 are centralized at the St. Albans campus, the kitchen is rarely used. The building is connected via internal walkways on several floors to the outpatient building (Building 6).

[30] Ibid.

[31] Ibid.

Approximately 25,800 square feet of space is currently vacant in the building. Of this amount, 17,200 square feet are located in Wards 16 North and South. The remaining 8,600 square feet of vacant space is located in Ward 4 South.

Outpatient Clinic - Building 6

Constructed in 1992, the outpatient clinic is the most recent addition to the campus. It is a five-story structure that is uniquely-shaped. The ground floor is the largest area, covering approximately 69,000 square feet of space. Floors 1 through 5 are generally similar in size, with each covering approximately 50,000 square feet. Floor 6, which is used for mechanical equipment, is the smallest of the floors at 45,000 square feet. Floors 3 and 5 cannot be occupied and are used as interstitial space, resulting in Building 6 being considered a 5-story building. The gross building area is approximately 344,000 square feet. Building 6 is connected to the main hospital building on the ground floor levels. Primary access to the building is through the main entrance for the main hospital.

Engineering and Administrative Offices – Building 2

Building 2 is the home of the engineering and facility management administrative offices. Constructed in 1954 along with the main hospital, the building is three stories high and has a gross building area of 17,150 square feet. The building is connected to the main hospital via an elevated walkway.

Quarters and Administrative Staff – Building 3

Building 3 is the home of the human resources staff and also provides temporary living quarters for resident staff and personnel. Constructed in 1954, the seven-story building has a gross building area of 26,590 square feet. When first constructed, Building 2 was originally used exclusively as living quarters. However, additions were later made to support additional office space for administrative personnel.

Chiller Plant – Buildings 4 and 5

Buildings 4 and 5 currently house the electrical/chiller plant for the entire campus. Building 4, which primarily contains the air conditioning plant, is a single-story, 4,750-square foot structure built in 1969. Building 5, which also houses electrical and chiller components, is a single-story, 10,870 square-foot structure built in 1990.

Methadone Clinic

VA currently leases 5,826 square feet in Manhattan. The purpose of the facility is to provide outpatient substance abuse services.

Recent and Planned Capital Improvements

An objective of the CARES study is to define space requirements for 2023. Most building components have a finite life expectancy and require cyclical repair or replacement. Items which will require attention between the present date and the design year include those shown in Table 10.

Table 10: Building Components Requiring Attention

Component	Maintenance Cycle
Windows/Doors	30 years
Masonry	50 years
Roofing Membrane	15 years
Interior Finishes	10 years
Major Medical Equipment	5-10 years
Heating Systems	25 years
Cooling Systems	20 years
Plumbing Fixtures	20 years
Electrical Switchgear/Panels	40 years
Lighting	20 years
IT/Communications	7 years

Safety issues related to capital planning are limited to fire and life safety (building code) issues. The projected model includes factors that accommodate current building code and interpolated departmental requirements. Existing conditions are typically permitted to remain; current code compliance is typically triggered by a major renovation project.

For the purposes of this planning exercise, it is assumed that the first funding cycle for a new project would occur after January 2009. Subsequently, the design and construction of any significant capital project could not be completed until 2012, assuming 12 months for design and 24 months for construction.

Buildings identified as being vacated or mothballed will not support any occupancy; however, some utilities, including mechanical, electrical, and plumbing (MEP) systems, will remain activated in order to maintain their physical condition.

The capital options were derived utilizing the above parameters, and include criteria for a safe, modern, and secure healthcare environment.

The most recent capital improvement to the Manhattan campus was the 1992 renovation of the main building entrance on East 23rd Street. The electrical plant was upgraded in 1990. Although certain structural issues have been identified as part of a 2003 VA-sponsored Facility Conditions Assessment report, the building engineer has indicated that most of the critical issues have been addressed.

Current and Forecast Investment Requirements

Manhattan's current facility condition assessment includes corrective action to the campus as follows:

- General site repairs such as repairing roads, parking, and landscaping are at a correction cost of $457,500
- Additional correction costs for buildings listed in the CAI are $23.3 million. $15.7 million of the costs are repairs to Building 1, which include architectural, electrical, mechanical, and plumbing system corrections.

Summary of Current Surplus/Vacant Space

The Manhattan campus fully utilizes its current site. The CAI database indicates that there is currently 37,214 feet of vacant building space on the campus.

Outleased Areas

Currently, the Manhattan campus has several spaces that are leased to private entities as part of "Enhanced Sharing" agreements. These agreements are effectively outleases in that the users pay annual rent on a given space for a contracted term. Much of this space is currently leased to NYU's Medical School, which is the largest non-VA space user in the facility. Of the approximately 48,000 square feet of space that is either outleased or occupied through enhanced sharing agreements, 96% is occupied by NYU or its affiliates.

Table 11 summarizes the existing enhanced sharing/outlease agreements currently in effect at the Manhattan campus.

Table 11: Outleases and Agreements - Manhattan Campus

Bldg. #	Bldg. Name	Floor	Sq. Ft.	Leased To	Expiration w/ Options
1	Main Hospital	18	3,200	NYU School of Medicine	12/31/07
1	Main Hospital	18	750	NYU School of Medicine	9/30/09
1	Main Hospital	17	1,220	NYU School of Medicine	1/14/09
1	Main Hospital	16	8,700	NYU School of Dentistry	9/30/14
1	Main Hospital	15	389	NYU School of Medicine	6/30/05
1	Main Hospital	15	155	NYU School of Medicine	6/30/05
1	Main Hospital	15	8,800	NYU School of Medicine	3/31/13
1	Main Hospital	11	304	NYU School of Medicine	6/30/05
1	Main Hospital	10	3,412	NYU School of Medicine	5/31/08
1	Main Hospital	10	1,220	NYU School of Medicine	1/31/09
1	Main Hospital	6	8,542	NYU School of Medicine	5/31/08
1	Main Hospital	2	7,786	NYU School of Dentistry	2/28/06
1	Main Hospital	2	1,470	NYU	2/28/06
	Main Hospital		1,574	U of F - College of Pharmacy (Conf. Rm.)	8/30/06
1	Main Hospital	Rooftop	200	Omnipoint (T-Mobile)	12/31/23
	Total		**47,722**		

Data provided on April 30, 2005 from the VA Manhattan Chief of Staff.

Environmental Review

Brooklyn

Based on a review of available documents, database searches, and on-site tours and interviews, the following statements, conclusions, and recommendations pertaining to the Brooklyn campus were developed as outlined below. The Brooklyn campus does not appear to have any environmental issues that require immediate resolution prior to investment in renovation and capital improvements.

The Brooklyn campus may contain lead in the potable water from lead piping/solder and surface paint due to the age of the facilities. The Brooklyn campus removed and closed eight underground storage tanks in the past. No major contamination issues appear associated with either the tank removal or the closed-in-place tanks. However, there are no tank removals or closed-in-place closure reports to review and assess. The potential exists for ground water contamination by leaking underground storage tanks at nearby facilities. The overall impact to the Brooklyn campus from these potential source areas is considered to be minimal.

Because of the age of the buildings and test results for asbestos containing materials (ACMs), only 10% of the ACMs have been removed and abated. It is estimated that the cost to remove all remaining ACMs at the Brooklyn campus is at least $15 million dollars. Any potential re-use needs to consider the potential requirement for asbestos abatement.

A characterization of wastewater effluent needs to be performed to determine eligibility for the Rules of the City of New York (RCNY) Title 15, Chapter 19 "*Use of the Public Sewers"* for wastewater effluent discharges.

The Brooklyn campus should revise the Spill Prevention, Control and Countermeasure (SPCC) plan and it should be certified by a professional engineer. The New York State Department of Environmental Conservation should be consulted to ensure proper regulatory coverage.

Manhattan Campus

Based on a review of available documents, database searches, and on-site tours and interviews, the following statements, conclusions, and recommendations pertaining to the Manhattan campus were developed as outlined below. The Manhattan campus does not appear to have any environmental issues that require immediate resolution prior to investment in renovation and capital improvements.

The ACMs survey at the Manhattan campus identified the presence of ACMs in the buildings and structures built in the 1950s. According to the CAI database, 95% of ACMs have been abated.

The Manhattan campus may contain lead in the potable water from lead piping/solder and surface paint due to the age of the facilities. The campus borders a 100-year flood zone and lies within a 500-year flood zone reported on the Federal Emergency Management Agency (FEMA) flood plain map. The campus removed and closed eight underground storage tanks in the past. However, no information is available to ascertain if these tanks were closed properly. It is recommended that a characterization of wastewater effluent discharges be performed to determine eligibility under the Rules of the City of New York (RCNY) Title 15, Chapter 19 "*Use of the Public Sewers.*" The potential of soil and groundwater contamination may still exist due to past operations on the site prior to the construction of the Manhattan campus.

Real Estate and Demographic Overview

Introduction

Relevant demographic, economic, and real estate market analysis is summarized for the Brooklyn and Manhattan campuses.

Brooklyn Demographic Trends

Between 1990 and 2000, Brooklyn's population grew slowly relative to the other four boroughs. According to the US Census Bureau, between 1990 and 2000, Brooklyn's annual population growth rate of 0.7% lagged behind the citywide growth rate of 0.9%. Over the same time period, Brooklyn's annual household growth rate of 0.6% also lagged behind the citywide average of 0.7%. Over the same time period, population growth in Community District (CD) 10 (the district in which the Brooklyn campus is located) grew 1% annually, increasing from 110,612 to 122,542 people. The number of housing units in CD 10 increased by 2,094 units between 1990 and 2000, an annual growth rate of 4%. Using the average household size for the CD 10, which equaled 2.37 people in 2000, we estimate that the growth of new households outpaced expansion in the district's housing supply by 300 units per year on average.

Brooklyn is also becoming home to a wealthier population. According to ESRI Business Solutions, a national provider of demographic forecasts, after annual growth of 2.3% between 1990 and 2000, median household income in Brooklyn increased 3.4% annually between 2000 and 2004. While median household income growth in Brooklyn is forecast to slow down slightly by 2009, it is expected to exceed the growth rate of all boroughs except Staten Island.

Brooklyn is also the home of the city's second youngest population. In 2000, Brooklyn's median resident age was 33.1 years, second lowest behind the Bronx, where the median age was 31.2. Since 2000, an influx of young professionals into the downtown area of Brooklyn, a growing student community, and desirable mix of cultural amenities are some of the primary factors that have contributed to Brooklyn's age distribution. According to ESRI Business Solutions, the median age of a Brooklyn resident was estimated to be 33.3 years in 2004, more than a year below the city-wide median of 34.7 years. Although the median age is forecast to increase to 33.4 years of age by 2009, Brooklyn is still poised to remain one of the younger boroughs.

Brooklyn Real Estate Trends

Fueled by low-interest rates, positive population growth, city-wide policies aimed at significantly expanding the housing stock, and rapid appreciation in Manhattan housing values, the market for both market-rate rental and condominium/co-op housing remains particularly strong in Brooklyn. Much of the development activity has been concentrated in neighborhoods in or adjacent to the downtown area, such as Cobble Hill, Fort Green/Clinton Hill, and Brooklyn Heights. According to a 2004 report on downtown Brooklyn's housing stock published by the Corcoran Group, a residential brokerage firm, condominium prices in the downtown neighborhoods sold for $586,000 on average, a 33% increase over the 2003 average value. Significant appreciation also occurred in 2-4 family townhouse/brownstone properties, which sold for $980,000 on average in 2004, a 23% increase over 2003 levels.

Increased prices and overall demand for housing in Brooklyn has prompted large expansions in supply. Tables 12 and 13 summarize residential building permit activity between 2000 and 2004. The number of building permits issued in a given year is a useful proxy for identifying trends in supply. Residential building activity in Brooklyn has surged over the past few years, accounting for 27% of all permits issued in New York City in 2004. Since 2003, the number of multi-family residential permits issued for Brooklyn has exceeded that of Manhattan. Instead of resulting in a depression of prices, however, the additional supply has been absorbed by demand that far exceeds supply growth. As a result of the rapid price appreciation in the downtown area, many neighborhoods in east and south Brooklyn have become increasingly attractive and have experienced increases in residential market values.

For example, Bay Ridge has wide range of for-sale housing product which have escalated at various rates over the past five years. Such housing types include single-family attached and mid-scale (four stories). As a result, information regarding the housing price appreciation in Bay Ridge over the past few years must first be placed in the context of what type of housing will be permitted at the campus. As part of its Stage II analysis, Team PwC will coordinate with the VA and local planning entities to obtain a better understanding of what specific housing mix would be permitted and appropriate on site.

Table 12: New York City Building Permits 2000-2004[32]

Unit Type	2000	2001	2002	2003	2004	5-year Avg.	CAGR: '00-'04
Single-family	**1,617**	**1,701**	**1,337**	**1,557**	**1,016**	**1,446**	**-11%**
Bronx	36	20	18	55	33	32	-2%
Brooklyn	133	229	189	118	113	156	-4%
Manhattan	-	4	3	1	1	2	NA
Queens	87	142	214	161	265	174	32%
Staten Island	1,361	1,306	913	1,222	604	1,081	-18%
Multi-family	**13,433**	**15,155**	**17,163**	**19,661**	**24,192**	**17,921**	**16%**
Bronx	1,610	2,196	2,608	2,880	4,891	2,837	32%
Brooklyn	2,771	2,744	5,058	5,936	6,712	4,644	25%
Manhattan	5,110	6,105	5,404	5,231	4,554	5,281	-3%
Queens	2,636	3,122	3,250	4,238	6,588	3,967	26%
Staten Island	1,306	988	843	1,376	1,447	1,192	3%
Total	**15,050**	**16,856**	**18,500**	**21,218**	**25,208**	**19,366**	**14%**

Notes:
1. CAGR - Compound Annual Growth Rate

Table 13: Distribution of New York City Building Permits: 2000-2004[33]

Unit Type	2000	2001	2002	2003	2004
Single-family	**100%**	**100%**	**100%**	**100%**	**100%**
Bronx	2%	1%	1%	4%	3%
Brooklyn	8%	13%	14%	8%	11%
Manhattan	0%	0%	0%	0%	0%
Queens	5%	8%	16%	10%	26%
Staten Island	84%	77%	68%	78%	59%
Multi-family	**100%**	**100%**	**100%**	**100%**	**100%**
Bronx	12%	14%	15%	15%	20%
Brooklyn	21%	18%	29%	30%	28%
Manhattan	38%	40%	31%	27%	19%
Queens	20%	21%	19%	22%	27%
Staten Island	10%	7%	5%	7%	6%

Notes:
1. CAGR - Compound Annual Growth Rate

[32] Source: U.S. Department of Housing and Urban Development

[33] Ibid.

Re-Use Potential - Brooklyn

The site appears to be very competitive for new market-rate residential construction. The site enjoys superb regional highway access via the Belt Parkway and Brooklyn-Queens Expressway. Subway and bus transportation is available but is generally not direct, requiring the visitor to change lines or modes.

The existing neighborhood context most likely indicates support for low- to mid-density residential uses on the site. Moreover, residential use is less likely to have an adverse impact on the operations of neighboring institutions, namely Fort Hamilton and Poly Prep. The site's primary re-use potential is for residential development (condominiums or apartments). Although apartment re-use would be a closer fit with VA's goal of generating annual income (from a ground lease, for example), a condominium project may better capture the site's value.

Manhattan Demographic Trends

Manhattan is the third most populous borough in New York City. According to the U.S. Census Bureau, between 1990 and 2000 Manhattan's annual population growth rate of 0.3% lagged behind the citywide growth rate of 0.9%. Over the same time period, Manhattan's annual household growth rate of 0.3% also lagged behind the citywide average of 0.7%.

Despite relatively slow population and household growth, however, Manhattan has attracted a wealthier population than any of the other boroughs. Between 1990 and 2000, median household income in Manhattan grew 3.8% annually, far exceeding the citywide average of 2.5% and the income growth rate of any of the other boroughs. A combination of general wealth increases among the existing population base as well as an influx of higher-earning individuals has contributed to positive household income growth both in real (i.e. inflation-adjusted) and nominal terms.

Manhattan has become home to the city's oldest population as well as its wealthiest. In 2000, Manhattan's median resident age was 35.7 years. Since 2000, an influx of older residents has caused Manhattan's median age to rise. According to ESRI Business Solutions, a national provider of demographic forecasts, the median age of a Manhattan resident was estimated to be 36.8 years in 2004, more than two years more than the city-wide median of 34.7 years. Driven by an aging baby-boomer segment that comprises a large share of the borough's current population, Manhattan's median resident age is forecast to increase to 37.6 by 2009.

Many of the population, household, and income trends of the 1990s are expected to persist through the current decade. According to ESRI Business Solutions, median household income in Manhattan is estimated to have increased 5.1% annually between 2000 and 2004 and is forecast to grow at an even faster rate of 6.2% annually between 2004 and 2009.

Manhattan Real Estate Trends

Fueled by low-interest rates, positive population growth, and citywide policies aimed at significantly expanding the housing stock, the market for both market-rate rental and condominium/co-op housing remains strong in Manhattan. According to Halstead, a residential brokerage firm, the average price of a Manhattan apartment rose 19% to $1,332,981 between June 2004 and June 2005. The median sales price increased 32% over the same time period, rising to $831,250. On a per square foot basis, the median price of a post-war condominium was $1,023 in June 2005, a 25% increase over June 2004 price levels.

Several indicators suggest that increased demand is primarily driving price appreciation in the Manhattan residential market. The number of building permits issued in a given year is a useful proxy for identifying trends in supply. As shown below, multi-family residential building activity has been greatest in Manhattan over the past five-years, despite the fact that the borough is only the third most populous in New York City. On average, approximately 29% of multi-family building permits issued annually between 2000 and 2004 were for developments located in Manhattan. Although Queens, Brooklyn, and the Bronx have surpassed Manhattan over the past two years, Manhattan's housing supply has continued to expand, albeit at a slower rate. Despite the availability of more supply, market-rate, owner-occupied apartment prices have experienced double-digit, year-over-year growth, further underscoring the demand-driven nature of price appreciation in the Manhattan market.

Manhattan Re-Use Potential

The site would appear to be very competitive for new market-rate residential construction, given its location on the East Side of Manhattan and proximity to major regional and local transportation hubs. Although the site's proximity to the Bellevue and NYU medical facilities make it potentially an attractive location for senior housing, given the prevailing market-rates for housing in the area, it is likely that development of such below-market housing would require substantial subsidies. Another key advantage is the fact that the site is located in an R-8 zoning district, permitting high-density residential uses.

The site's primary re-use potential is for residential development (condominiums or rental apartments). Although apartment re-use would be a closer fit with VA's goal of generating annual income (off of a ground lease, for example), a condominium project may better capture the site's value.

Re-Use Opportunities and Challenges - Manhattan and Brooklyn

Team PwC utilized a checklist template to screen the potential redevelopment land use candidates for each site, whether for the whole site, a portion of the site, or for parts/all of specific buildings. This exercise eliminates non-viable re-use options using rational and systematic application of consistent criteria. The criteria include the presence and strength of key market demand drivers for specific uses, as well as the appropriateness of the site (i.e., size, configuration, access, visibility, etc.) to accommodate such uses.

Real estate trends as well as zoning restrictions suggest the primary re-use potential for each campus is for residential development (condominiums or apartments). Therefore, the re-use potential for either campus may only be realized if either campus is completely vacated.

In the case of the Manhattan campus, the site is located in residential R-8 zoning. According to New York City zoning parameters, residential and certain community facilities, such as hospitals and buildings housing academic/educational organizations, are the only uses permitted "as-of-right" within an R-8 district. Although additional development types can be accommodated within an R-8 district, such projects must fall within the category of "special uses" identified in the zoning parameters, a category that generally includes non-commercial or infrastructure related uses such as utility plants, institutional offices, and municipal functions (i.e. police stations). In addition to zoning restrictions, the existing layout of the site does not permit separation of the campus into separate parcels to accommodate a new residential structure.

In the case of the Brooklyn campus, market and zoning restrictions also limit partial re-use options. Although the site is nearly three times the size of the Manhattan campus and is zoned for lower-density residential development, the mandated parking and infrastructure requirements associated with such development are significant and would potentially interfere with existing VA operations. Moreover, the proximity of the site to both federal medical and military (Fort Hamilton) institutions would require a significant buffer zone to accommodate security needs.

Although several of the BPOs recapture a significant amount of space located within the existing buildings of the site for potential re-use, the marketability of such vacant space to permitted users at market rates is limited as well. Potential tenants for the space would predominantly include institutional or tenants affiliated with the existing operations at the center. For example, in Manhattan, such potential users may include New York University Medical School, Bellevue Hospital, and other affiliated entities. In Brooklyn, such potential users may include SUNY Downstate and other affiliated entities. Market conditions dictate that such users would most likely provide a below-market-rate return to VA.

In the case of both Brooklyn and Manhattan, the footprint necessary for a residential development with sufficient unit density to render the project financially feasible to the private development community cannot be accommodated at either site. Since both campuses have a lack of available space for new construction, limiting zoning implications, and the limited marketability of vacant space to permitted users at market rates, a fractionalization strategy for potential re-use is not practical.

Brooklyn

Re-use of the Brooklyn campus is limited by three main factors: 1) existing uses are highly integrated in terms of infrastructure and thus cannot be easily separated; 2) parking currently needs expansion and new construction for services would require structured parking; and 3) the VAMC is located in a residential area, adjacent to an army base, and close to the water and golf course. The current zoning for the site and the surrounding area is "R-4", which can

accommodate low- to mid-density residential uses as well as certain approved community uses. However, only 55% (60.6% if senior housing is included) of a given lot's area can be used to calculate developable area for a site. In the case of the Brooklyn VAMC campus, assuming that the entire site is treated as one contiguous lot, only 9.7 of the 17.1 acres would be developable. To this end, several re-use options have been eliminated from consideration including light industrial, heavy industrial, and flex space use. Existing site characteristics suggest that residential development (condominiums or rental apartments) is the most appropriate re-use option for the campus, and initial assessments suggest that re-use of the site would generate modest positive returns for VA.

Opportunities

Team PwC projects that the Brooklyn site's primary re-use potential is for residential development, specifically condominium or apartment housing. A condominium re-use approach will require VA to sell land outright to a developer, while an apartment project would allow VA to lease land to a developer, and collect an annual ground lease payment. Under current market conditions, land values tend to be higher for condominium projects than for rental ones. The discrepancy is due to a variety of demand- and supply-related factors, including rapid appreciation in condo values, favorable financing terms for condo projects, and relative softness in the rental market. Market timing will have a considerable impact on returns to VA. In the current market, while condominiums are performing well, the local apartment market is slightly less robust. Although apartment re-use would be a closer fit with VA's goal of generating annual income (off of a ground lease, for example), a condominium project may better capture the site's value. The existing neighborhood context would most likely indicate support for low- to mid-density residential uses on the site. Moreover, residential use is less likely to have an adverse impact on the operations of neighboring institutions, namely Fort Hamilton and Poly Prep.

Additionally, co-op ownership is a common model in New York City. However, the condominium model will generally result in a land value that would be higher than that generated from a co-op development. Co-op units are generally priced lower than comparable condominium units in any market. In the Fort Greene/ Clinton areas of Brooklyn, the median 2005 value of a co-op unit was less than half of than for a condominium. While this gap is likely to be narrower in other parts of Brooklyn such as Bay Ridge, there does remain an appreciable premium for condominiums over co-ops. There are several reasons for this difference. Unlike the condominium structure in which individual households hold fee title to the portion of the structure in which they reside, co-operative tenants are actually shareholders in a corporate entity that holds title to the entire property. The tenants in a co-op are actually proprietary lessees who are entitled to the space by virtue of their equity share in the corporate entity. As a result, the co-operative structure requires that certain actions ranging from simple apartment improvements to sale transactions receive the approval of the co-op board – a limitation not generally found in a comparable condominium unit. Moreover, if the site were to be disposed of through a sales transaction, a condominium structure would be most appropriate given that residents hold fee title to the actual building and land. However, if the site were disposed of through an enhanced-

use ground lease, a combination of co-op and condominium structures might be possible. Still, the highest revenue generation would result from the condominium option.

Challenges

The existing uses at Brooklyn VAMC are highly integrated in terms or infrastructure and thus cannot be easily separated. Therefore, Team PwC only examined the re-use of either all of or none of the Brooklyn site.

There may be a cost premium for demolition and removal of asbestos or contamination from lead-based paints. If cleanup costs are prohibitively expensive and negatively impact redevelopment economics, this cost may have to be borne by VA. It is estimated that asbestos abatement at the Brooklyn campus would be at least $15 million.

Although there is substantial parking capacity, it is heavily utilized and in need of expansion. Reducing parking capacity to create a re-use/redevelopment site would adversely impact site access for those coming by car unless a new parking structure is constructed. In options with complete re-use of the Brooklyn campus, on-site parking in the form of a new parking structure is included in the development budget. While cost magnitudes associated with this element are unknown at present, it is logical to assume that VA and a developer would both need to bear the cost associated with this potential improvement. There may be additional cost burden on VA if VA is charged with demolishing the existing buildings on-site.

Although it is likely that the existing zoning (R-4) will be applicable for any scenario in which the site is re-used, it is unclear how the site would be zoned if disposed of to a non-VA development entity. Additionally, it is unclear whether specific re-use of the site is contingent on the approval of Fort Hamilton, an active military base that is home to the North Atlantic Division of the U.S. Army Corps of Engineers.

Manhattan

Re-use of the Manhattan campus is limited by three main factors: 1) existing uses are highly integrated in terms of infrastructure and thus cannot be easily separated; 2) limited parking for staff and public and new construction for services would require structured parking; and 3) the VAMC is located in a high density residential and commercial area. The current zoning for the site and the surrounding area is “R-8”, which permits high-density residential uses but only allows 80% of the site to be developable. To this end, several re-use options have been eliminated from consideration including light industrial, heavy industrial, and flex space use. Existing site characteristics suggest that residential development (condominiums or rental apartments) is the most appropriate re-use option for the campus, and initial assessments suggest that re-use of the site would generate significant positive returns for VA.

Opportunities

Team PwC projects that the Manhattan site's primary re-use potential is for residential development, specifically condominium or apartment housing. The site would appear to be very competitive for new market-rate residential construction, given its location on the East Side of Manhattan and proximity to major regional and local transportation hubs. Although the site's proximity to the Bellevue and NYU medical facilities make it potentially an attractive location for senior housing, given the prevailing market-rates for housing in the area, it is likely that development of such below-market housing would require substantial subsidies.

A condominium re-use approach will require VA to sell land outright to a developer, while an apartment project would allow VA to lease land to a developer, and collect an annual ground lease payment. Under current market conditions, land values tend to be higher for condominium projects than for rental ones. The discrepancy is due to a variety of demand- and supply-related factors, including rapid appreciation in condo values, favorable financing terms for condo projects, and relative softness in the rental market. Market timing will have a considerable impact on returns to VA. In the current market, while condominiums are performing well, the local apartment market is slightly less robust. Although apartment re-use would be a closer fit with VA's goal of generating annual income (off of a ground lease, for example), a condominium project may better capture the site's value.

With this information in mind, the developer would most likely not demolish the existing main hospital building but instead would renovate it for residential use. In addition, it is anticipated that the developer would maximize the remaining development rights on the site by building a second, medium-density residential tower and/or adding floors to either the existing main hospital building or the outpatient center.

Additionally, co-op ownership is a common model in New York City. However, the condominium model will generally result in a land value that would be higher than that generated from a co-op development. Co-op units are generally priced lower than comparable condominium units in any market. In Manhattan, the median 2005 per square foot value of a co-op unit was approximately two-thirds of that of a condominium. There are several reasons for this difference. Unlike the condominium structure in which individual households hold fee title to the portion of the structure in which they reside, co-operative tenants are actually shareholders in a corporate entity that holds title to the entire property. The tenants in a co-op are actually proprietary lessees who are entitled to the space by virtue of their equity share in the corporate entity. As a result, the co-operative structure requires that certain actions ranging from simple apartment improvements to sale transactions receive the approval of the co-op board – a limitation not generally found in a comparable condominium unit. Moreover, if the site were to be disposed of through a sales transaction, a condominium structure would be most appropriate given that residents hold fee title to the actual building and land. However, if the site were disposed of through an enhanced-use ground lease, a combination of co-op and condominium structures might be possible. Still, the highest revenue generation would result from the condominium option.

Challenges

The existing uses at Manhattan VAMC are highly integrated in terms of infrastructure and thus cannot be easily separated. The campus does have vacant space, but it is not easily parceled out for re-use/redevelopment. Some specific uses (research, affiliate, and community support) are possible but it is unlikely these uses will generate significant proceeds. Therefore, Team PwC only examined the re-use of either all of or none of the Manhattan site.

There may be a cost premium for demolition and removal of asbestos or contamination from lead-based paints. If cleanup costs are prohibitively expensive and negatively impact redevelopment economics, this cost may have to be borne by VA.

When addressing the need to build new structured parking for re-use/redevelopment, the associated cost magnitudes are unknown at present. However, it is logical to assume that VA and a developer would both need to bear the cost associated with this potential improvement. Although it is likely that the existing zoning (R-8) will be applicable for any scenario in which the site is re-used, it is unclear how the site would be zoned if disposed of to a non-VA development entity.

Re-Use Potential

Team PwC's approach to re-use assumes that the two hospital sites are programmed with the "highest and best" land uses that maximize combined re-use value potential for all locations. To this end, all land or buildings available for re-use are fully programmed to the extent that local zoning and forecast market conditions allow. Given the highly integrated infrastructure at both the Brooklyn and Manhattan sites, right-sizing of these facilities does not facilitate partial re-use. Team PwC contemplates complete re-use of a site when all healthcare services at a particular site are consolidated at another facility (i.e., either at an existing VA facility or a new location).

Team PwC developed three re-use options for the two sites, shown in Table 14. Team PwC considered the re-use opportunities presented when developing the healthcare business plan options. For some of the healthcare options, neither site will be available for re-use. Regulatory constraints were not addressed in the Stage I assessment of re-use potential. Discussions of regulatory constraints and interested third parties will be addressed in Stage II as applicable.

Table 14: Brooklyn – Manhattan Study Site Re-Use Options

Option	Description
Re-Use of Brooklyn Campus	Complete re-use creates an approximate 17-acre redevelopment site surrounded by R-4 zoning. The site borders Fort Hamilton and would generate modest positive returns for VA.
Re-Use of Manhattan Campus	Complete re-use creates an approximate 6-acre redevelopment site surrounded by R-8 zoning. The site would generate significant positive returns for VA.
Re-Use of *Both* Brooklyn and Manhattan Campuses	Complete re-use of both the Brooklyn and Manhattan campuses for a total approximate 23-acre redevelopment site. Combination of both sites would generate maximum positive returns.

Brooklyn Re-Use

This scenario applies to BPOs that vacate the Brooklyn campus. Several CBOCs would be provided throughout Brooklyn to replace certain services formerly provided at the Brooklyn campus. The approach is estimated to create an approximate 770,000 square feet / 17-acre development site in Brooklyn. An analysis of key demand drivers suggests that residential development would be a logical re-use option. A 470-unit residential program (condo or apartment) was developed to test financial performance, assuming a net density of 25 units per acre of developable site (assumes that 55% of the site is developable[34]). The density level assumes a low-rise tower. The following decision drivers will impact this re-use option:

- The tenancy (i.e. owner-occupied versus rental apartments) is a key determinant of value. Under current market conditions, land values tend to be higher for condominium projects than for rental ones. The discrepancy is due to a variety of demand- and supply-related factors, including rapid appreciation in condo values, favorable financing terms for condo projects, and relative softness in the rental market. Land value returns under both condominium and rental development programs were estimated.
- This option assumes that the developer demolishes the existing buildings and structures on the site. If VA is charged with demolishing the existing buildings on-site, this will impact the value to VA.
- Fort Hamilton is an active military base that is home to the North Atlantic Division of the U.S. Army Corps of Engineers. It is unclear whether the specific re-use of the site is contingent on Fort Hamilton's approval.
- Existing zoning (R-4) will be applicable for any scenario in which the site is re-used. Although the existing campus configuration is not permitted under existing zoning ordinances, it is unclear how the site would be zoned if disposed of to a non-VA development entity.
- On-site parking is included in the development budget. While cost magnitudes associated with this element are unknown at present, it is logical to assume that VA and a developer would both need to bear the cost associated with these potential improvements.
- Market timing will have a considerable impact on returns to VA. In the current market, while condominiums are performing well, the local apartment market is slightly less robust. A condominium re-use approach will require VA to sell land outright to a developer, while an apartment project would allow VA to lease land to a developer, and collect an annual ground lease payment.

[34] Under the current NYC Zoning ordinance, an area zoned R-4 can accommodate low-to-mid density residential uses, as well as certain approved community uses. However, only 55 % (60.6 % if senior housing is included) of a given lot's area can be used to calculate developable area for a site. In the case of the VA campus, assuming that the entire site is treated as one contiguous lot, only 9.7 of the 17.1 acres would be developable.

Manhattan Re-Use

This re-use scenario applies to BPOs that vacate the Manhattan campus. The approach is estimated to create a 6.43 acre developable site in Manhattan. An analysis of key demand drivers suggests that residential development would be a logical re-use option. A 1,170-unit residential program (condo or rental apartments) was developed to test financial performance, assuming a net density of 150 units per acre of developable site (assumes that 80% of the site is developable based on local zoning ordinances). The density level assumes a low-rise tower. The following decision drivers will impact this re-use option:

- The tenancy (i.e. owner-occupied versus rental apartments) is a key determinant of value. Under current market conditions, land values tend to be higher for condominium projects than for rental ones. The discrepancy is due to a variety of demand- and supply-related factors, including rapid appreciation in condo values, favorable financing terms for condo projects, and relative softness in the rental market. Land value returns were estimated under both condominium and rental development programs.
- This option assumes that the development does not demolish the existing main hospital building but instead renovates it for residential use. In addition, it is anticipated that the developer maximizes the remaining development rights on the site by building a second, medium-density residential tower and/or adding floors to either the existing main hospital building or the outpatient center.
- Existing zoning (R-8) will be applicable for the site. Although the existing campus configuration is not permitted under existing zoning ordinances, it is unclear how the site would be zoned if disposed of to a non-VA development entity.
- On-site parking is included in the development budget. While cost magnitudes associated with this element are unknown at present, it is logical to assume that VA and a developer would both need to bear the cost associated with these potential improvements.
- Market timing will have a considerable impact on returns to VA. In the current market, while condominiums are performing well, the local apartment market is slightly less robust. A condominium re-use approach will require VA to sell land outright to a developer, while an apartment project would allow VA to lease land to a developer, and collect an annual ground lease payment.

Brooklyn and Manhattan Re-Use

This re-use scenario applies to BPOs that result in vacating both Brooklyn and Manhattan campuses. Under this scenario, a new campus would be created. The approach is estimated to create an approximate 770,000 square feet / 17-acre development site in Brooklyn and an approximate 250,000 square feet / 6-acre development site in Manhattan. An analysis of key demand drivers suggests that high-density residential development would be a logical re-use option for Manhattan, while low- to mid-density multi-family residential would be supportable in Brooklyn.

For the Brooklyn campus, a 470-unit residential program (condo or apartment) was developed to test financial performance, assuming a net density of 25 units per acre of developable site

(assumes that 55% of the site is developable[35]). The density level assumes a low-rise tower. For the Manhattan campus, a 1,170-unit residential program (condo or apartment) was developed to test financial performance, assuming a net density of 150 units per acre of developable site (assumes that 80% of the site is developable based on local zoning ordinances). The density level assumes a low-rise tower. The decision drivers that will impact this re-use option are the same as those listed above for Brooklyn and Manhattan campuses.

4.0 Overview of Healthcare Demand and Trends

Veteran enrollment and utilization for healthcare services was projected for 20 years, using 2003 data as supplied by VA as the base year and projecting through 2023. Projected utilization data is based upon market demand allocated to the Brooklyn and Manhattan facilities. The following section describes these long-term trends for veteran enrollment and utilization for healthcare services at these facilities.

Enrollment Trends

As of 2003, approximately 169,000 enrolled veterans (Table 15) resided in the Metro New York market of VISN 3. Over the next 20 years, the number of enrolled veterans for this market is expected to decline 41% to approximately 100,000.

Enrollment projections for the market differ by priority group. Enrollment of Priority 1–6 veterans (those veterans with the greatest service-connected needs) is projected to decrease by 21% by 2023, while enrollment for Priority 7–8 veterans is projected to decrease by 70% for the same period. The enrollment forecast for Priority 7–8 veterans assumes an annual enrollment fee, and the continued freeze on Priority 8 enrollment.

Table 15: Projected Veteran Enrollment for the Metro New York Market by Priority Group

Fiscal Year	Enrolled 2003	Projected 2013	% Change (2003 to 2013)	Projected 2023	% Change (2003 to 2023)
Priority 1-6	100,062	98,428	-2%	78,963	-21%
Priority 7-8	69,314	29,982	-57%	20,583	-70%
Total	**169,376**	**128,410**	**-24%**	**99,546**	**-41%**

Utilization Trends

Utilization data is based upon market demand associated with the specific facility (Brooklyn or Manhattan). Utilization data was analyzed for those CARES Implementation Categories (CICs) for which the Brooklyn and Manhattan VAMCs have projected demand. A summary of utilization data is provided for each CIC in the following tables. Acute inpatient utilization is measured in number of beds, while both ambulatory and outpatient mental health utilization is

[35] Ibid.

measured in number of clinic stops. A clinic stop is a visit to a clinic or service rendered to a patient.

Considering overall demand for inpatient and outpatient services (Table 16) outpatient clinic stops (including radiology and pathology) are expected to decrease by 4% over the 20 next years. Overall, inpatient bed need is projected to decrease by 18% over the 20-year time period.

Table 16: Inpatient and Outpatient Utilization Summary

Brooklyn-Manhattan	2003 Actual	2013 Projected	2023 Projected	% Change (2003 to 2013)	% Change (2013 to 2023)	% Change (2003 to 2023)
Total Inpatient Beds	298	304	244	2%	-20%	-18%
Total Clinic Stops	836,689	950,925	801,342	14%	-16%	-4%

Inpatient Utilization Trends

Projected utilization for inpatient services varies across the VAMCs for each CIC with inpatient medicine and observations projecting a 23% decrease in demand and inpatient surgery indicating a 46% decline in bed need by 2023. In contrast, the inpatient psychiatry and other VA mental health programs project a significant increase in bed need, with increases of 13% and 45% respectively. This reflects planned implementation of the VA Mental Health Strategic Plan.

Table 17 - Total Brooklyn-Manhattan Study Site – Inpatient Utilization Trends (Beds)

	2003 Actual Beds	2013 Beds Needed	2023 Beds Needed	% Change (2003 to 2013)	% Change (2013 to 2023)	% Change (2003 to 2023)
Inpatient Medicine and Observation						
Brooklyn	73	74	60	1%	-19%	-18%
Manhattan	74	67	53	-9%	-21%	-28%
TOTAL	**147**	**141**	**113**	**-4%**	**-20%**	**-23%**
Inpatient Psychiatry and Substance Abuse						
Brooklyn	8	9	7	13%	-22%	-13%
Manhattan	31	46	37	48%	-20%	19%
TOTAL	**39**	**55**	**44**	**41%**	**-20%**	**13%**
Inpatient Surgery						
Brooklyn	28	21	14	-25%	-33%	-50%
Manhattan	55	44	31	-20%	-30%	-44%
TOTAL	**83**	**65**	**45**	**-22%**	**-31%**	**-46%**
Other: VA Mental Health Inpatient Programs						
Brooklyn	29	43	42	48%	-2%	45%
TOTAL	**29**	**43**	**42**	**48%**	**-2%**	**45%**
Grand Total						
Brooklyn	138	147	123	7%	-16%	-11%
Manhattan	160	157	121	-2%	-23%	-24%
TOTAL	**298**	**304**	**244**	**2%**	**-20%**	**-18%**

Ambulatory Utilization

Projected utilization for ambulatory services varies by CIC and between the Brooklyn and Manhattan VAMCs. The only CICs projected to experience increases in demand are cardiology (expected to increase by 72%) and urology (expected to increase by 10%). CICs projected to experience decreases in demand include eye clinic (-25%), non-surgical specialties (-35%), orthopedics (-49%), primary care and related specialties (-6%), and surgical and related specialties (-46%). Rehabilitation medicine remains constant during the projected period due to a planning decision made by VA.

Table 18 - Total Brooklyn-Manhattan Study Site – Ambulatory Utilization Trends (Clinic Stops)

	2003 Actual Stops	2013 Projected Stops	2023 Projected Stops	% Change (2003 to 2013)	% Change (2013 to 2023)	% Change (2003 to 2023)
Cardiology						
Brooklyn	11,114	20,751	17,486	87%	-16%	57%
Manhattan	11,396	25,746	21,287	126%	-17%	87%
TOTAL	**22,510**	**46,497**	**38,773**	**107%**	**-17%**	**72%**
Eye Clinic						
Brooklyn	15,810	14,413	12,646	-9%	-12%	-20%
Manhattan	16,509	13,611	11,670	-18%	-14%	-29%
TOTAL	**32,319**	**28,024**	**24,316**	**-13%**	**-13%**	**-25%**
Non-Surgical Specialties						
Brooklyn	40,650	33,044	28,197	-19%	-15%	-31%
Manhattan	50,422	36,791	30,855	-27%	-16%	-39%
TOTAL	**91,072**	**69,835**	**59,052**	**-23%**	**-15%**	**-35%**
Orthopedics						
Brooklyn	3,976	2,230	1,919	-44%	-14%	-52%
Manhattan	3,106	2,012	1,699	-35%	-16%	-45%
TOTAL	**7,082**	**4,242**	**3,618**	**-40%**	**-15%**	**-49%**
Primary Care & Related Specialties						
Brooklyn	71,314	80,503	64,810	13%	-19%	-9%
Manhattan	89,730	108,223	85,958	21%	-21%	-4%
TOTAL	**161,044**	**188,726**	**150,768**	**17%**	**-20%**	**-6%**
Rehab Medicine						
Brooklyn	15,680	15,680	15,680	NA	NA	NA
Manhattan	32,041	32,041	32,041	0%	0%	0%
TOTAL	**47,721**	**47,721**	**47,721**	**NA**	**NA**	**NA**
Surgical & Related Specialties						
Brooklyn	33,048	22,346	18,768	-32%	-16%	-43%
Manhattan	37,756	23,885	19,744	-37%	-17%	-48%
TOTAL	**70,804**	**46,231**	**38,512**	**-35%**	**-17%**	**-46%**
Urology						
Brooklyn	5,413	7,352	6,627	36%	-10%	22%
Manhattan	9,833	11,491	9,948	17%	-13%	1%
TOTAL	**15,246**	**18,843**	**16,575**	**24%**	**-12%**	**9%**
Grand Total						
Brooklyn	197,005	196,319	166,133	0%	-16%	-16%
Manhattan	250,793	253,800	213,202	1%	-16%	-15%
TOTAL	**447,798**	**450,119**	**379,335**	**1%**	**-16%**	**-15%**

Outpatient Mental Health Utilization

Projected utilization for outpatient mental health services varies by CIC and across the VAMCs. The CIC projected to experience the greatest increase in demand is the homeless program

(expected to increase by 51%). CICs projected to experience decreases in demand include behavioral health (-11%), methadone treatment (-76%), and work therapy (-22%). Due to a planning decision by VA, projections for the day treatment program will remain constant over the 20-year projection period.

Table 19 - Total Brooklyn-Manhattan – Outpatient Mental Health (Clinic Stops)

	2003 Actual Stops	2013 Projected Stops	2023 Projected Stops	% Change (2003 to 2013)	% Change (2013 to 2023)	% Change (2003 to 2023)
Behavioral Health						
Brooklyn	59,729	53,741	49,568	-10%	-8%	-17%
Manhattan	38,543	40,967	37,543	6%	-8%	-3%
TOTAL	**98,272**	**94,708**	**87,111**	**-4%**	**-8%**	**-11%**
Day Treatment						
Brooklyn	4,936	4,936	4,936	NA	NA	NA
TOTAL	**4,936**	**4,936**	**4,936**	**NA**	**NA**	**NA**
Homeless						
Manhattan	706	1,398	1,063	98%	-24%	51%
TOTAL	**706**	**1,398**	**1,063**	**98%**	**-24%**	**51%**
Methadone Treatment						
Brooklyn	22,482	9,319	5,291	-59%	-43%	-76%
Manhattan	41	47	29	15%	-38%	29%
TOTAL	**22,523**	**9,366**	**5,320**	**-58%**	**-43%**	**-76%**
Work Therapy						
Brooklyn	2,937	2,433	1,798	-17%	-26%	-39%
Manhattan	2,493	3,392	2,453	36%	-28%	-2%
TOTAL	**5,430**	**5,825**	**4,251**	**7%**	**-27%**	**-22%**
Grand Total						
Brooklyn	90,084	70,429	61,593	-22%	-13%	-32%
Manhattan	41,783	45,804	41,088	10%	-10%	-2%
TOTAL	**131,867**	**116,233**	**102,681**	**-12%**	**-12%**	**-22%**

The following summarizes the demand projections through 2023:

- The Manhattan VAMC is expected to show the greatest decrease in inpatient demand (-24% or 39 beds),
- Other VA mental health inpatient program at Brooklyn VAMC shows the most notable increase in inpatient demand at 45% (13 beds)
- While the projected demand for ambulatory services is projected to decline for most outpatient services, the demand for cardiology is expected to increase significantly at both Brooklyn and Manhattan.

The varying utilization data demonstrates that different facilities will experience significant decline over the next 20 years for most CICs, although some services will experience an increase

in demand. The analysis of the projected enrollment and utilization data for the Brooklyn and Manhattan VAMCs highlights the need for a complex capital planning process.

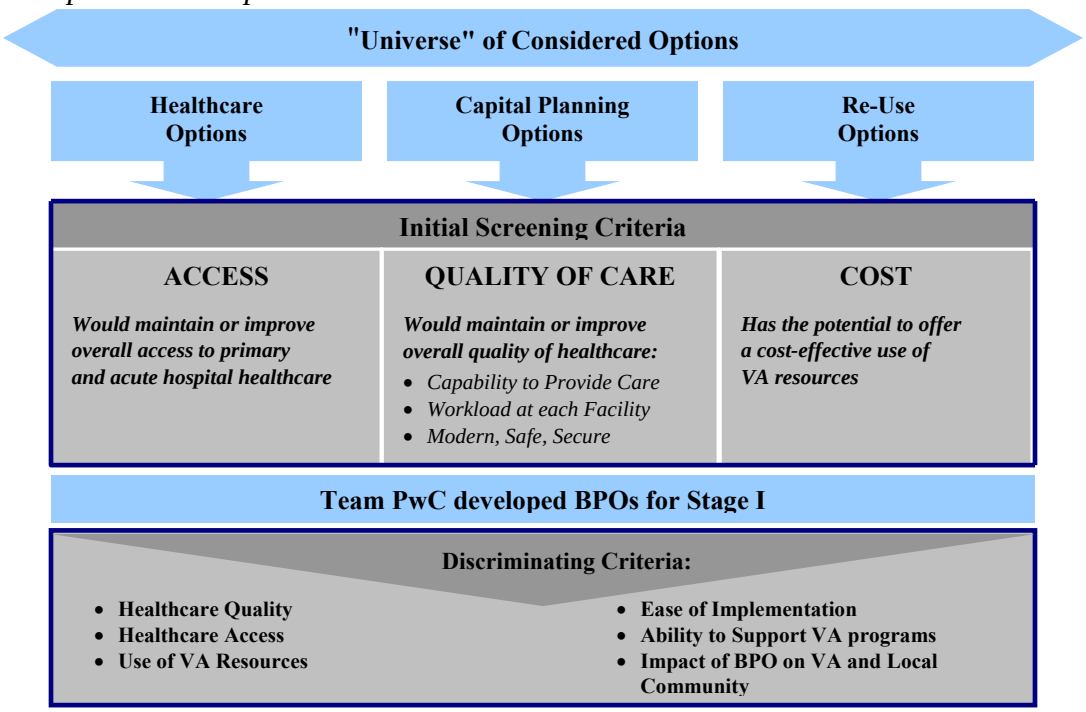
5.0 Business Plan Option Development

Options Development Process

Using VA furnished information, site tours and interviews, as well as stakeholder and LAP member input, Team PwC developed a broad range of discrete and credible healthcare and capital planning options and associated re-use options. Each healthcare and capital planning option that passed the initial screening served as potential components of BPOs. A review panel of experienced Team PwC consultants, including medical practitioners, capital planners, and real estate advisors considered the assessment results and recommended the BPOs. Each of the BPOs was then assessed at a more detailed level according to a set of discriminating criteria.

The following diagram illustrates the complete options development process:

Figure 6: Options Development Process



Initial Screening Criteria

Discrete healthcare and capital planning options were developed for the Brooklyn-Manhattan study and were subsequently screened to determine whether or not a particular option had the potential to meet or exceed the CARES objectives. The following describes the initial screening criteria that were used during this process:

- **Access**: *Would maintain or improve overall access to primary and acute hospital healthcare* – During Stage I, primary care access is evaluated using VA's Primary Care Access Tool and a base year of 2001. If an option resulted in a change in location for primary care, the new location would be evaluated using the Primary Care Access Tool. Acute Care access was evaluated using data provided by VA from its ArcView Tool to recalculate the new location's impact on access.

- **Quality of Care:** *Would maintain or improve the overall quality[36] of healthcare* – This is assessed by consideration of the site's ability to provide services and the level of workload at any facility compared to utilization thresholds. Quality concerns may also occur if it is assumed that VA would contract with a non-VA provider for specific services but there is no current proven healthcare provider for those required services within that particular location. In such a case, assumptions may be required regarding the likelihood of such a provider emerging. Therefore, any option that relied upon patient care being provided by an emergent third party failed this quality test. An option would pass the quality test only in cases when a compelling reason could be identified to assert that services would be provided.

  Additionally, the following was included as part of the quality measure:

  - **Modern, Safe, Secure**: *Would result in a modernized, safe healthcare delivery environment that is compliant with existing laws, regulations, and VA requirements* – This was assessed by consideration of the physical environment proposed in the option, any material weaknesses identified in VA's space and functional surveys, facilities' condition assessments, seismic assessments for existing facilities, and application of a similar process to any alternative facilities proposed.

  It should be noted that the disruption to continuity of care is not an explicit criteria utilized in the initial screening process; however, the impact on continuity of care was used to further narrow the broad range of options to be assessed in Stage I. A separate study of the impact on continuity of care for each of the options will be conducted in the Stage II assessments of the options.

- **Cost**: *Has the potential to offer a cost-effective use of VA resources* – This was assessed as part of Team PwC's initial cost effectiveness analysis. A 30-year planning period was used in the cost effectiveness analysis. Any option that did not have the potential to provide a cost effective physical and operational configuration of VA resources as compared to the baseline[37] failed this test.

[36] Quality includes clinical proficiency across the spectrum of care, safe environment, and appropriate facilities.

[37] Baseline describes the current state applying utilization projected out to 2023, without any changes to facilities, programs, or locations. Baseline assumes same or better quality, and accounts for any necessary maintenance for a modern, safe, and secure healthcare environment.

All identified options were screened against these criteria. If an option failed the initial access test, then no other tests were applied. Those passing the access test were then further screened against quality and cost. Screening was halted when the option failed to meet one of the initial screening criteria.

Discriminating Criteria

After passing the initial screening, BPOs were developed and the following discriminating criteria were applied to assess the overall attractiveness of the BPO.

- **Healthcare Quality** – These criteria assess the following:
  - How the BPO sustains or enhances the quality of healthcare delivery.
  - If the BPO can ensure that forecasted healthcare need is appropriately met.
  - Whether each BPO will result in a modernized, safe, and secure healthcare delivery environment.

- **Healthcare Access** – These criteria assess how the BPO impacts the percentage of the patients meeting access guidelines by describing the current percentage and the expected percentage of patients meeting this guideline.

- **Impact on VA and Local Community** – These criteria assess the impact on staffing, as well as research and clinical education programs.

- **Use of VA Resources** – These criteria assess the cost effectiveness of the physical and operational configuration of the BPO over a 30-year planning horizon. Costs were assessed at an "order of magnitude" level of analysis in Stage I. Detailed costing will be conducted in Stage II. These criteria include:
  - Operating Cost Effectiveness: The ability of the BPO to provide recurring/operating cost increases or savings as compared to the baseline.
  - Level of Capital Expenditures: The amount of investment required relevant to the baseline based on results of initial capital planning estimates.
  - Level of Re-use Proceeds: The amount of re-use proceeds and/or demolition/clean-up cost based on results of the initial re-use study.
  - Cost Avoidance: The ability to obtain savings in necessary capital investment as compared to the baseline BPO.
  - Overall Cost Effectiveness: The initial estimate of net present cost as compared to the baseline.

- **Ease of Implementation** – These criteria assess the risk of implementation associated with each BPO. The following major risk areas were considered:

- Reputation
- Continuity of Care
- Organization & Change
- Legal & Contractual
- Compliance
- Security
- Political
- Infrastructure
- Financial
- Technology
- Project Realization

- **Ability to Support VA programs** – These criteria assess how the BPO would impact the sharing of resources with DoD, enhance One-VA integration, and impact special considerations such as DoD contingency planning, Homeland Security needs, or emergency need projections.

Operational Costs

The objective of the cost analysis in Stage I is to support the comparison of the estimated cost effectiveness of the baseline with each BPO. The Study Methodology calls for an "order of magnitude" level of analysis in Stage I and detailed costing in Stage II. The total estimated costs include operating costs, initial capital costs, re-use opportunities, and any cost avoidances. The operating costs for the baseline and each BPO are a key input to the financial analysis for Stage II. Operating costs considered for the Stage I analysis include direct medical care, administrative support, engineering and environmental management, and miscellaneous benefits and services.

The baseline operating costs were provided to Team PwC by VA. The 2004 costs were obtained from the Decision Support System (DSS), VA's official cost accounting system. This information was selected for use because DSS provides the best available data for identifying fixed direct, fixed indirect, and variable costs. The data can be rolled up to the CIC level and the data is available nationally for all VAMCs and CBOCs. These costs are directly attributable costs and generally do not reflect the total costs of the operation.

The costs were obtained for each facility within the study scope and were aggregated into the CICs. The costs were categorized as total variable (per unit of care), total fixed direct, and total fixed indirect costs. The definition of each cost category is as follows:

- Total Variable (Direct) Cost: The costs of direct patient care that vary directly and proportionately with fluctuations in workload. Examples include salaries of providers and the cost of medical supplies. Variable direct cost = variable supply cost + variable labor cost. The cost of purchased care is considered a variable direct cost.

- Total Fixed Direct Cost: The costs of direct patient care that do not vary in direct proportion to the volume of patient activity. The word "fixed" does not mean that the costs do not fluctuate, but rather that they do not fluctuate in direct response to workload changes. Examples include depreciation of medical equipment and salaries of administrative positions in clinical areas.

- Total Fixed Indirect Cost: The costs not directly related to patient care, and, therefore, not specifically identified with an individual patient or group of patients. These costs are an allocation of the total other costs (i.e. not direct costs) associated with the operation of the facility. These costs are allocated to individual medical departments through VA's existing indirect cost allocation process. Examples of indirect costs include utilities, maintenance, and administration costs.

FY 2004 operating costs from DSS were deflated to FY 2003 dollars to create the costs for FY 2003 which is the base date for current cost comparison. These costs (fixed and variable) were then inflated for each year of the study period. Variable costs were multiplied by the forecasted workload for each CIC and summed to estimate total variable costs. Variable costs were also provided by VA for non-VA care. These are based on VA's actual expenses and are used in the BPOs where care is contracted.

These costs are used together with initial capital investment estimates as the basis for both the baseline option and each BPO with adjustments made to reflect the impact of implementation of the capital option being considered. Potential re-use proceeds are added to provide an overall indication of the cost of each BPO.

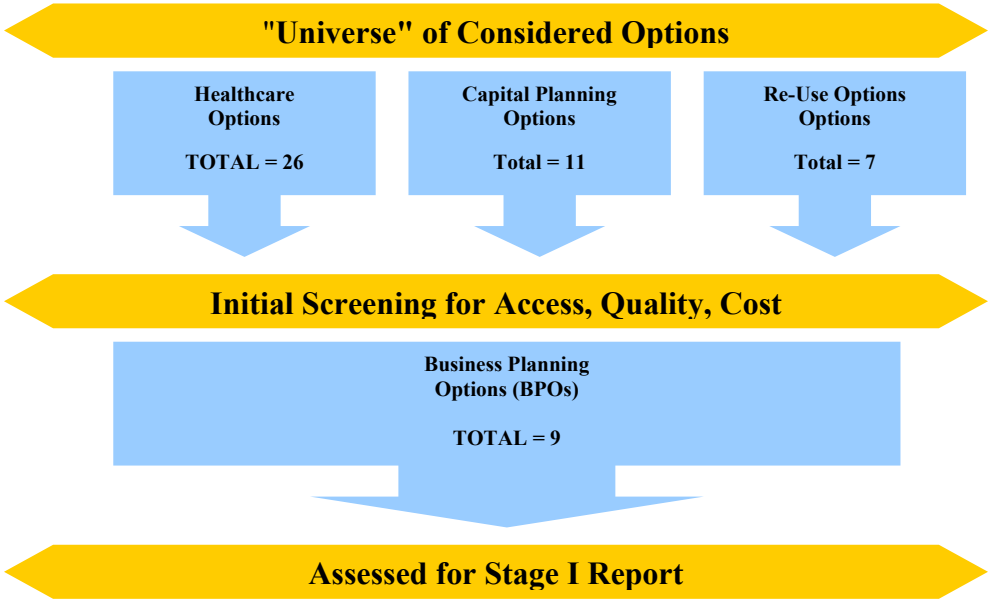
Summary of Business Plan Options

The individual healthcare, capital planning, and re-use options that passed the initial screening were further considered as options to comprise a BPO. A BPO is defined as consisting of a single healthcare option, combined with at least one associated capital planning option and re-use option. Therefore, the formula for a BPO is:

BPO = Healthcare option + Capital Planning option + Re-use option(s)

The following diagram illustrates the final screening results of all options given consideration:

Figure 7: Final Screening Results of Options



Options Not Selected for Assessment

Several of the options created during the option development process did not pass the initial screening criteria. Table 20 lists those options that either did not pass the initial screening criteria or were deemed inferior to other options that did pass the initial screening. The table details the results of the initial screening and the reasons why these options were not selected.

Table 20: Options Not Selected for Assessment

Description	Reason(s) Not Selected
Completely consolidate the Brooklyn and Manhattan campuses at the current Manhattan Campus. No new construction. Includes the expansion of CBOCs.	The Manhattan campus was deemed unsuitable to meet workload demand requirements due to facility capacity constraints. The entirety of the facilities cannot be consolidated without additional new construction at the Manhattan campus and the expansion of CBOCs.
Completely consolidate the Brooklyn and Manhattan campuses at the current Brooklyn Campus. No new construction. Includes the expansion of CBOCs.	The Brooklyn campus was deemed unsuitable to meet workload demand requirements due to facility capacity constraints. The entirety of the facilities cannot be consolidated without additional new construction at the Brooklyn campus and the expansion of CBOCs.
Completely consolidate the Brooklyn and Manhattan campuses at the Brooklyn campus. Expand Harlem CBOC	This BPO meets workload demand requirements through new construction and renovations at the Brooklyn campus and an expanded Harlem CBOC. However, to maintain or improve access for patients from Manhattan, more than one CBOC must be expanded.
Completely consolidate the Brooklyn and Manhattan campuses at the Brooklyn campus. Expand SoHo CBOC	This BPO meets workload demand requirements through new construction and renovations at the Brooklyn campus and an expanded SoHo CBOC. However, to maintain or improve access for patients from Manhattan, more than one CBOC must be expanded.
Completely consolidate the Brooklyn and Manhattan campuses at the current Manhattan campus. No new construction. Maintain a large CBOC at Poly Place.	The Manhattan campus was deemed unsuitable to meet workload demand requirements due to facility capacity constraints. The entirety of the facilities cannot be consolidated without additional new construction at the Manhattan campus.
Completely consolidate the Brooklyn and Manhattan campuses at the Manhattan campus. No new construction. Develop a CBOC at Borough Hall.	The Manhattan campus was deemed unsuitable to meet workload demand requirements due to facility capacity constraints. The entirety of the facilities cannot be consolidated without additional new construction at the Manhattan campus.
Completely consolidate the Brooklyn and Manhattan campuses at the Manhattan campus. No new construction. Expand Chapel Street CBOC.	The Manhattan campus was deemed unsuitable to meet workload demand requirements due to facility capacity constraints. The entirety of the facilities cannot be consolidated without additional new construction at the Manhattan campus.
Completely consolidate the Brooklyn and Manhattan campuses at the Manhattan campus. No new construction. Create a new Queens CBOC.	The Manhattan campus was deemed unsuitable to meet workload demand requirements due to facility capacity constraints. The entirety of the facilities cannot be consolidated without additional new construction at the Manhattan campus.

Description	Reason(s) Not Selected
Convert Brooklyn campus to Medical/Surgical. Convert Manhattan campus to Psychiatry/Behavioral.	The logical split of services is Medical/Surgical at Manhattan and Psychiatry/Behavioral Health at Brooklyn. This BPO would likely affect affiliations and negatively impact quality.
Consolidate by Service Line. Cardiology/Orthopedics to Brooklyn campus and Oncology/Women's Health to Manhattan campus.	This BPO would require, at a minimum, the movement of Centers of Excellence from Manhattan to Brooklyn (in Cardiac/Thoracic Surgery) and from Brooklyn to Manhattan (the Specialty Service in Oncology). This movement is not likely to occur without the loss of the supporting affiliates. The loss of affiliates would negatively impact quality.
Split Medical/Surgical (Brooklyn campus: Medical, Manhattan campus: Surgical).	The potential to sustain or enhance current quality levels under a split of medicine vs. surgery by campus is remote.
Split Medical/Surgical (Brooklyn campus: Surgical, Manhattan campus: Medical).	The potential to sustain or enhance current quality levels under a split of medicine vs. surgery by campus is remote.
Completely consolidate the Brooklyn and Manhattan campuses through an entirely new Manhattan campus.	It is prohibitively expensive to develop an entirely new facility in the Borough of Manhattan.
Completely consolidate the Brooklyn and Manhattan campuses at a newly constructed Staten Island campus.	This BPO would not provide sufficient access for veterans due to the location and this borough has the lowest projected veteran enrollment in New York City. It is assumed that the affiliations with both NYU and SUNY would be discontinued, negatively impacting quality of care.
Completely consolidate the Brooklyn and Manhattan campuses at a newly constructed Staten Island campus. Expand CBOCs in Manhattan and Brooklyn.	This BPO would not provide sufficient access for veterans due to the location and this borough has the lowest projected veteran enrollment in New York City. It is assumed that the affiliations with both NYU and SUNY would be discontinued, negatively impacting quality of care.
Completely consolidate the Brooklyn and Manhattan campuses at the Brooklyn campus. Contract for Manhattan Centers of Excellence.	Contracting would significantly increase total cost of care as the consolidated campus in Brooklyn would still be required to carry a tertiary medical center's infrastructure.
Completely consolidate the Brooklyn and Manhattan campuses at the Brooklyn campus. Contract for Manhattan Centers of Excellence and selected specialties.	Contracting would significantly increase total cost of care as the consolidated campus in Brooklyn would still be required to carry a tertiary medical center's infrastructure.

Baseline BPO

Based upon Team PwC's methodology, the baseline BPO advances in the Stage I process. The baseline is the BPO under which there would not be significant change in either the location or type of services provided in the study site. In the baseline BPO, the Secretary's Decision and forecasted healthcare demand and trends from the demand forecast for 2023 are applied to the current healthcare provision solution for the study site. Additionally, capital improvements required to meet modern, safe, and secure standards are factored into the current state assessment to develop this BPO.

Specifically, the baseline BPO is characterized by the following:

- Healthcare continues to be provided as currently delivered, except to the extent that healthcare volume for particular procedures fall below key quality or cost effectiveness threshold levels.
- Capital costs allow for current facilities to receive such investment as is required to rectify any material deficiencies (e.g., in safety or security) such that they would provide a safe healthcare delivery environment as required in the Secretary's Decision.
- Life cycle capital costs allow for ongoing preventative maintenance and life-cycle maintenance of major and minor building elements.
- Re-use plans use such vacant space in buildings and/or vacant land or buildings emerge as a result of the changes in demand for services and the facilities in which they sit.

Evaluation System for BPOs

Each BPO is evaluated against the baseline BPO in an assessment table providing comparative rankings across several categories and an overall attractiveness rating. The results of the BPO assessment and the Team PwC recommendation are provided in subsequent sections.

Table 21: Evaluation System Used to Compare BPOs to baseline BPO

Ratings to assess Access, Quality, Local Community, and Ability to Support VA Programs	
↑	The BPO has the potential to provide a slightly improved state compared to the baseline BPO for the specific discriminating criteria (e.g., access, quality, etc)
↔	The BPO has the potential to provide materially the same state as the baseline BPO for the specific discriminating criteria (e.g., access, quality, etc)
↓	The BPO has the potential to provide a slightly lower or reduced state compared to the baseline BPO for the specific discriminating criteria (e.g., access, quality, etc).
Operating cost effectiveness (based on results of initial healthcare/operating costs)	
↑↑↑	The BPO has the potential to provide significant recurring operating cost savings compared to the baseline BPO (>15%)
↑↑	The BPO has the potential to provide significant recurring operating cost savings compared to the baseline BPO (>10%)
↑	The BPO has the potential to provide some recurring operating cost savings compared to the baseline BPO (5%)
-	The BPO has the potential to require materially the same operating costs as the baseline BPO (+/- 5%)
↓	The BPO has the potential to require slightly higher operating costs compared to the baseline BPO (>5%)
↓↓	The BPO has the potential to require slightly higher operating costs compared to the baseline BPO (>10%)
↓↓↓	The BPO has the potential to require slightly higher operating costs compared to the baseline BPO (>15%)
Level of capital expenditures estimated	
↓↓↓↓	Very significant investment required compared to the baseline BPO **(≥ 200%)**
↓↓	Significant investment required compared to the baseline BPO **(121% to 199%)**
-	Similar level of investment required compared to the baseline BPO **(80% to 120% of Baseline)**
↑↑	Reduced level of investment required compared to the baseline BPO **(40%-80%)**
↑↑↑↑	Almost no investment required **(≤ 39%)**
Level of re-use proceeds relative to baseline BPO (based on results of initial re-use study)	
↓↓	High demolition/clean-up costs, with little return anticipated from re-use
-	No material re-use proceeds available
↑	Similar level of re-use proceeds compared to the baseline (+/- 20% of baseline)
↑↑	Higher level of re-use proceeds compared to the baseline (e.g., 1-2 times)
↑↑↑	Significantly higher level of re-use proceeds compared to the baseline (e.g., 2 or more times)
Cost avoidance (based on comparison to baseline BPO)	
-	No cost avoidance opportunity
↑↑	Significant savings in necessary capital investment compared to the baseline BPO
↑↑↑↑	Very significant savings in essential capital investment compared the baseline BPO

Overall cost effectiveness (based on initial net present cost calculations)	
↓↓↓↓	Very significantly higher net present cost compared to the baseline BPO (>1.15 times)
↓↓	Significantly higher net present cost compared to the baseline BPO (1.10 – 1.15 times)
↓	Higher net present cost compared to the baseline BPO (1.05 – 1.09 times)
-	Similar level of net present cost compared to the baseline (+/- 5% of baseline)
↑	Lower net present cost compared to the baseline (90-95% of Baseline)
↑↑	Significantly lower net present cost compared to the baseline BPO (85-90% of baseline)
↑↑↑↑	Very significantly lower net present cost compared to the baseline BPO (<85% of baseline)
Ease of Implementation of the BPO	
↑	The BPO has the potential to provide a slightly improved state compared to the baseline BPO based upon the level of impact and likelihood of occurrence of risks to its implementation plan.
↔	The BPO has the potential to provide materially the state of the baseline based upon the level of impact and likelihood of occurrence of risks to its implementation plan.
↓	The BPO has the potential to provide a slightly lower or reduced state compared to the baseline BPO based upon the level of impact and likelihood of occurrence of risks to its implementation plan.
Overall "Attractiveness" of the BPO Compared to the baseline	
↑↑↑↑	Very "attractive" – highly likely to offer a solution that improves quality and/or access compared to the baseline while appearing significantly more cost effective compared to the baseline.
↑↑	"Attractive" - likely to offer a solution that at least maintains quality and access compared to the baseline while appearing more cost effective compared to the baseline.
-	Generally similar to the baseline.
↓↓	Less "attractive" compared to the baseline - likely to offer a solution that while maintaining quality and access compared to the baseline appears less cost effective compared to the baseline.
↓↓↓↓	Significantly less "attractive" – highly likely to offer a solution that may adversely impact quality and access compared to the baseline and appearing less (or much less) cost effective compared to the baseline.

Stakeholder Input: Purpose and Methods

VA determined at the beginning of the CARES process that it would use the Federal Advisory Committee Act (FACA) process to solicit stakeholder input and to provide a public forum for discussion of stakeholder concerns because "the gathering and consideration of stakeholder input in this scope of work is of great importance." According to the Statement of Work, the purpose of the Local Advisory Panel (LAP) appointed under the FACA is to:

> Provide the Contractor with a perspective on previous CARES local planning products, facility mission and workload, facility clinical issues, environmental factors, VISN referral and cross cutting issues in order to assist the Contractor in the refinement of the options the Contractor shall recommend. The Federal Advisory Committee will also provide feedback to the Contractor on proposed options and recommendations.

The Local Advisory Panel is required to hold at least four public meetings at which stakeholders would have an opportunity to present testimony and comment on the work performed by Team PwC and the deliberations of the LAP.

Team PwC also devised methods for stakeholders to communicate their views without presenting testimony at the LAP meetings. Throughout Stage I, a comment form was available

electronically via the CARES website and in paper form at the first LAP public meeting. In addition, stakeholders were advised that they could submit any written comments or proposals to a central mailing address. A number of stakeholders chose this method for providing input..

The time in which stakeholder input was collected during Stage I can be divided into two input periods – Input Period One and Input Period Two. The intent of Input Period One was to collect general stakeholder input to assist in the development of potential BPOs, while Input Period Two allowed stakeholders to comment on the specific BPOs presented at the public LAP meeting. Input Period One started in April 2005 and ended on the day that the comment form with specific BPOs was available for public comment on the CARES website. For both periods, stakeholder input was reviewed and categorized into nine categories of concern which are summarized in Table 22.

For Input Period Two, stakeholders were provided with a brief description of the BPOs and asked to indicate whether they favored the option, were neutral about the option, or did not favor the option. Ten days after the second LAP meeting was held, Team PwC summarized all of the stakeholder views that were received during input periods one and two. The summarized information is included in this report.

Table 22: Definitions of Categories of Stakeholder Concern

Stakeholder Concern	*Definition*
Effect on Access	Involves a concern about traveling to another facility or the location of the present facility.
Maintain Current Service/Facility	General comments related to keeping the facility open and maintaining services at the current site.
Support for Veterans	Concerns about the federal government/VA's obligation to provide health care to current and future veterans.
Effect on Healthcare Services & Providers	Concerns about changing services or providers at a site.
Effect on Local Economy	Concerns about loss of jobs or local economic effects of change.
Use of Facility	Concerns or suggestions related to the use of the land or facility.
Effect on Research & Education	Concerns about the impact a change would have on research or education programs at the facility.
Administration's Budget or Policies	Concerns about the effects of the administration's budget or other policies on health care for veterans.
Unrelated to the Study Objectives	Other comments or concerns that are not specifically related to the study.

Summarized stakeholder views were available to LAP members for their review and consideration when evaluating BPOs as well as in defining new BPOs.

Stakeholder Input to Business Plan Option Development

Approximately 350 members of the public attended the first LAP meeting held on May 3, 2005, and approximately 210 members of the public attended the second LAP meeting held on September 19, 2005. A total of 7,840 forms of stakeholder input (general comments on the study

as well as specific BPOs) were received between April 20 and September 29, 2005. The concerns of stakeholders who submitted general comments not related to specific BPOs are summarized in Table 23:

Table 23: Analysis of General Stakeholder Concerns (Periods One and Two)

Key Concern	Number of Comments		
	Oral	Written and Electronic	**Total**
Effect on Access	39	172	**211**
Maintain Current Service/ Facility	56	7,015	**7,071**
Support for Veterans	34	117	**151**
Effect on Healthcare Services and Providers	31	68	**99**
Effect on Local Economy	1	32	**33**
Use of Facility	3	48	**51**
Effect on Research and Education	21	554	**575**
Administration's Budget or Policies	5	22	**27**
Unrelated to the Study Objectives	32	22	**54**

6.0 Business Plan Options

The option development process resulted in a multitude of discrete healthcare, capital planning, and re-use options, which were subsequently screened to determine whether a particular option had the potential to meet or exceed the CARES objectives (i.e., access, quality, and cost). Overall, in addition to the baseline, there were eight BPOs (comprising healthcare, capital planning, and re-use components) which passed initial screening and were developed for Stage I (see Figure 7).

Each BPO was assessed at a more detailed level according to the discriminating criteria. The BPOs reflect options related to consolidating the Brooklyn and Manhattan campuses, converting campuses by service type, and realigning/consolidating service lines (see Table 24).

One additional BPO (BPO 10) was proposed by the LAP at the second LAP Public Meeting. This BPO is almost identical to BPO 7, but instead of accommodating the services in renovations to the Brooklyn and Manhattan campuses, the services would be accommodated through new construction, with the existing buildings being vacated or demolished.

Table 24: Business Plan Options

BPO 1: Baseline
"Baseline" describes the current state projected out to 2013 and 2023 without any changes to facilities or programs, but accounting for projected utilization changes, same or better quality, and necessary maintenance for a safe, secure, and modern healthcare environment. Re-use potential is not addressed in the baseline.
BPO 2: Consolidate at Brooklyn Campus and Expand Harlem and SoHo CBOCs
Relocate services from Manhattan to the Brooklyn site and expand CBOCs in Harlem and SoHo. The Brooklyn site as well as Harlem and SoHo CBOCs will provide outpatient services. This includes vacating the Manhattan campus completely. Construction of a new building of 185,790 square feet will be required to accommodate the additional need at Brooklyn. In addition, phased renovation of the existing buildings at the Brooklyn campus would be required. The level of complexity would be low to medium. Demolition of Buildings 2 and 3 would be needed to allow space for the new building. The 222,000 square feet of surface parking would be replaced with a six-story 550,000 square foot structured parking deck. The entire Manhattan campus would be made available for re-use.
BPO 3: Consolidate at Manhattan Campus; Develop a New Queens CBOC and a New Borough Hall CBOC
Relocate services from Brooklyn to the Manhattan site and develop new CBOCs in Queens and Borough Hall. The Manhattan site as well as new Queens and Borough Hall CBOCs will provide outpatient services. This includes vacating the Brooklyn campus completely. In addition, this BPO involves the construction of a CBOC in Queens and a CBOC at Borough Hall in Brooklyn. New construction of a 345,244 square foot building would be needed to accommodate all services on the Manhattan campus. In addition, phased renovation of the existing buildings on the Manhattan campus would be required. The level of complexity required for the renovations would be low to medium, except for the renovations for behavioral health, which are high. Demolition of Buildings 2 (Engineering) and 3 (Quarters) would be required to allow space for the new building. Since Manhattan is an urban site and the majority of the veterans rely on mass transit, no new parking is allocated in this BPO. The entire Brooklyn campus would be made available for re-use.
BPO 4: Consolidate Inpatient Only at Manhattan Campus; Retain Brooklyn Ambulatory Services at Poly Place; Develop a New Queens CBOC and a New Borough Hall CBOC
Relocate all inpatient services from Brooklyn to the Manhattan site. This includes vacating the Brooklyn campus completely with the exception of the ambulatory services pavilion. The ambulatory services pavilion would remain as a complementary ambulatory site to the new CBOCs in Borough Hall and Queens. In addition, this BPO involves the construction or lease of a CBOC in Queens and a CBOC at Borough Hall in Brooklyn. Phased renovation of the existing buildings on the Manhattan campus would be required. The level of complexity required for the renovations would be low to medium, except for the renovations for behavioral health, which are high. With the ambulatory capacity at Brooklyn remaining the same, no new construction would be needed to accommodate services on this campus. Since Manhattan is an urban site and the majority of veterans rely on mass transit, no new parking would be needed for the Manhattan campus. The current surface parking at Brooklyn will be sufficient for the Brooklyn campus. The highly integrated infrastructures at the Brooklyn and Manhattan campuses do not facilitate partial re-use. Therefore, there is no re-use potential with this BPO.
BPO 5: Convert Manhattan Campus to Medical/Surgical Only, Brooklyn Campus to Psychiatry/Behavioral Health
This BPO involves shifting inpatient and outpatient medical/surgical services to one location and inpatient and outpatient psychiatry and behavioral health at another. In this BPO, all inpatient and outpatient medical/surgical services would be moved to the Manhattan campus. Psychiatry and behavioral health services would be moved to the Brooklyn campus. Phased renovation of the existing buildings on the Manhattan campus would be required. The level of complexity required for the renovations would be low to medium for ambulatory care and support functions, and high for acute care. Ultimately, there would be 22,669 square feet of unused space at the Manhattan campus. Similarly, phased renovations of the existing buildings on the Brooklyn campus would be needed. The level of complexity required for the Brooklyn renovations is low and medium for ambulatory care and support functions, and high for acute care, psychiatry, and behavioral health. There would be 471,490 square feet of unused space at the Brooklyn campus. Building 2 would be vacated or demolished as it would be surplus space. Buildings 2 and 3 on the Manhattan campus would need to be demolished for new VA medical facilities. Since Manhattan is an urban site and the majority of veterans rely on mass transit, no new parking is allocated for the Manhattan campus. The current surface parking at Brooklyn will be sufficient for this BPO. Despite the unused space, the highly integrated infrastructures at the Brooklyn and Manhattan campuses do not facilitate partial re-use. Therefore, there is re-use potential with this BPO.

BPO 6: Service Line Consolidation: Cardiology / Orthopedics / Women's Health to Manhattan; Oncology to Brooklyn
BPO 6 involves consolidating at a specialty or "clinical service line" level. General medical/surgical services would remain available at both campuses. Cardiology, orthopedics, and women's health would consolidate at the Manhattan campus. Oncology would consolidate at the Brooklyn campus. Phased renovation of the existing buildings on the Manhattan campus would be required. The level of complexity required for the Manhattan renovations would be low to medium for ambulatory care and support functions, and high for acute care. There would be 161,099 square feet of unused space at the Manhattan campus. Phased renovation of the existing buildings on the Brooklyn campus would be needed. The level of complexity required for the Brooklyn renovations would be low to medium for ambulatory care and support functions, and high for acute care and behavioral health. There would be 315,270 square feet of unused space at the Brooklyn campus. Building 2 would be vacated or demolished as it would be surplus space. Since Manhattan is an urban site and the majority of veterans rely on mass transit, no new parking is allocated for the Manhattan campus. The current surface parking at Brooklyn will be sufficient for this option. Despite the unused space, the highly integrated infrastructures at the Brooklyn and Manhattan campuses do not facilitate partial re-use. Therefore, there is no re-use potential with this BPO.
BPO 7: Incremental Realignment with New and Expansion of Existing CBOCs
This BPO involves consolidating selected sub-specialty services to enhance operating efficiency. It is not as aggressive or comprehensive as BPO 6 in the consolidation of services. Changes in the services at the Manhattan or the Brooklyn campuses would be incremental. The Brooklyn site as well as the new and expanded CBOCs will provide outpatient services. This BPO extends and enhances NYHHS' initiatives to collaboratively realign services between the Brooklyn and Manhattan campuses to promote patient access and operational efficiency without upsetting the delicate balance of teaching and research interests required to sustain the academic affiliations unique to each facility. General medical-surgical services would remain at both campuses. This BPO includes expansion of the existing Harlem and Chapel Street CBOCs and developing new CBOCs in Queens and outer Brooklyn. Phased renovation of the existing buildings on the Brooklyn campus would be required. The level of complexity for the Brooklyn renovations would be low to medium for support functions, and high for acute care, behavioral health, and ambulatory services. There would be 221,814 square feet of unused space at the Brooklyn campus. Building 2 would be vacated or demolished as it would be surplus space. Since Manhattan is an urban site and the majority of veterans rely on mass transit, no new parking is allocated for the Manhattan campus. The current surface parking at Brooklyn will be sufficient for this BPO. Despite the unused space, the highly integrated infrastructures at the Brooklyn and Manhattan campuses do not facilitate partial re-use. Therefore, there is no re-use potential with this BPO.
BPO 8: New Consolidated Campus in Queens
This BPO involves completely replacing all services at Manhattan and Brooklyn with a new campus. In this BPO, the new campus is located in Queens. While the location has yet to be determined, preferably it would be as close to SUNY Downstate as the current Brooklyn location in terms of commute time. In addition, this BPO requires vacating the Brooklyn and the Manhattan campuses completely. This BPO involves the construction of a new 1,456,156 square foot building on a new site to accommodate all services. Since this BPO involves completely vacating both campuses, the Brooklyn and Manhattan campuses would be made available for re-use.
BPO 9: New Consolidated Campus in Brooklyn with Expansion of CBOCs
This BPO requires completely replacing services at Manhattan and Brooklyn with a new campus in Brooklyn and with expansion of CBOCs. In addition, BPO 9 involves phased renovation and expansion of existing CBOCs in Harlem and at Chapel Street. The new site as well as the expanded CBOCs will provide outpatient services. This BPO also requires the construction of a CBOC in Queens, a CBOC in outer Brooklyn, and vacating the Brooklyn and Manhattan campuses completely. BPO 9 also involves the construction of a new 1,352,634 square foot building on a new site to accommodate all services. The entire Brooklyn and Manhattan campuses will be made available for re-use.
BPO 10: Build Replacement Facilities at Existing Sites with CBOC Expansion
This BPO was proposed by the LAP during the September 19, 2005 public meeting. This BPO proposes building replacement facilities at the Brooklyn and Manhattan campuses through all new construction.

BPO 1: Baseline

"Baseline" describes the current state projected out to 2013 and 2023 without any changes to facilities or programs or locations thereof. Baseline state accounts for projected utilization and enrollment changes, and assumes same or better quality, and necessary maintenance for a safe, secure, and modern healthcare environment. Re-use potential is not addressed in the baseline.

BPO 1 (Baseline) would retain all existing services currently in operation at each campus.

Assessment

Table 25 summarizes the assessment of the baseline BPO according to the discriminating criteria.

Table 25: Baseline Assessment

Assessment of Baseline	Description
Healthcare Access	
Primary	99.6% of enrollees are within the drive time guideline. The primary care access threshold is 70%. Therefore, the Brooklyn-Manhattan study site meets the drive time access guideline for primary care.
Acute	99.8% of enrollees are within the drive time guidelines. The acute care access threshold is 70%. Therefore, the Brooklyn-Manhattan study site meets the drive time access guideline for acute care.
Tertiary	100% of enrollees are within the drive time guideline. The tertiary care threshold is 65%. Therefore, the Brooklyn-Manhattan study site meets the drive time access guideline for tertiary care.
Healthcare Quality	
Quality of medical services	NYHHS achieved the following for select quality scores as compared to overall VA national scores: • Better or comparable scores for inpatient care and ambulatory care. • Worse scores for behavioral health, mental health, and patient satisfaction NYHHS achieved the following for select quality scores as compared to overall VISN 3 scores: • Better or comparable scores for inpatient care and endocrinology (ambulatory care) • Worse scores for colorectal cancer care (ambulatory care), behavioral health, mental health, and patient satisfaction
Modern, safe, and secure environment	Brooklyn-Manhattan facilities have ratings in the range of 2 to 5 out of 5 for critical values such as accessibility, code, functional space, and facility conditions. The baseline assumes all facilities will receive the necessary investment to rectify any material deficiencies in order to provide a modern, safe, and secure healthcare delivery environment.

Assessment of Baseline	Description
Ensures forecast healthcare need is appropriately met	The baseline assumes the percentage of in-house and contracted care is maintained. Additionally, baseline assumes that in order to maintain quality of care and meet VA thresholds for clinical volume, VA will make necessary operational adjustments (e.g., staffing or contract arrangements).
Impact on VA and Local Community	
Human Resources: FTEE need (based on volume)	With a decrease in workload, it is anticipated that the baseline results in a corresponding decrease in the number of FTEEs.
Recruitment / retention	The Brooklyn and Manhattan campuses are in an urban area and do not have unusual difficulty recruiting most hospital staff. However, recruitment for RN, LPN, and CRNA positions has been especially difficult – this is characteristic of the competitive market for these clinicians. The current recruitment environment is expected to be maintained in the baseline. Retention is generally not an issue due to competitive wages, benefits, and job security.
Research	The Brooklyn and Manhattan campuses receive $15.7 million annually in total research funding. $5.7 million is in intramural funding and $10 million is through the affiliated schools and non-profit research corporations. For FY05, Brooklyn has 54 active protocols. Manhattan has 156. Of the 210 total, 81% are human studies, with the remainder being animal studies. 639 Veterans are currently enrolled in studies.
Education and Academic Affiliations	The primary affiliations at the Brooklyn and New York campuses are NYU and SUNY. Affiliate relationships support Centers of Excellence, including cardiac surgery, dialysis, rehab medicine and HIV/AIDS. Manhattan also has the largest AIDS program in the VA system. For FY05, 285 residents, 280 medical students and 45 allied health students are trained at the Brooklyn and Manhattan campuses. These affiliations and programs are assumed to be maintained in the baseline.
Use of VA Resources	
Operating cost effectiveness	Brooklyn-Manhattan operating costs include those costs associated with providing care onsite at the Brooklyn and Manhattan campuses, as well as purchasing care contracted from other providers.
Level of capital expenditures estimated	Level of capital expenditures estimated includes the costs identified by the facility and captured in the CAI database reflecting essential maintenance and capital required to achieve a modern, safe, and secure environment.
Level of re-use proceeds	There is no re-use in the baseline.
Cost avoidance	In the baseline, it is assumed that the amount of money identified by the facility in the CAI database as essential maintenance would be fully expended.
Overall cost effectiveness	Not applicable for the baseline.

Assessment of Baseline	Description
Ease of Implementation	
Riskiness of BPO Implementation	The baseline presents implementation risk in terms of the following major risk categories: • Continuity of care, since care may be disrupted for patients during extensive facility renovations • Project realization, due to the risk of renovation timelines not being met
Ability to Support VA Programs	
DoD sharing	VA NYHHS has 22 active agreements with DoD. The baseline BPO will not adversely impact any of the agreements.
One-VA Integration	VA NYHHS provides office space to VBA. The baseline has the potential to provide the same level of current One-VA integration.
Special Considerations	VA NYHHS plays an important role in Homeland Security efforts. VA NYHHS supports disaster preparedness by maintaining surgical wards (24-hour readiness) and stockpiling medicine for major infectious disease outbreaks, mass casualties, etc.

Capital Planning Information

Figures 8 and 9 provide the site plans for BPO 1.

Figure 8 - BPO 1 Site Plan - Brooklyn Campus

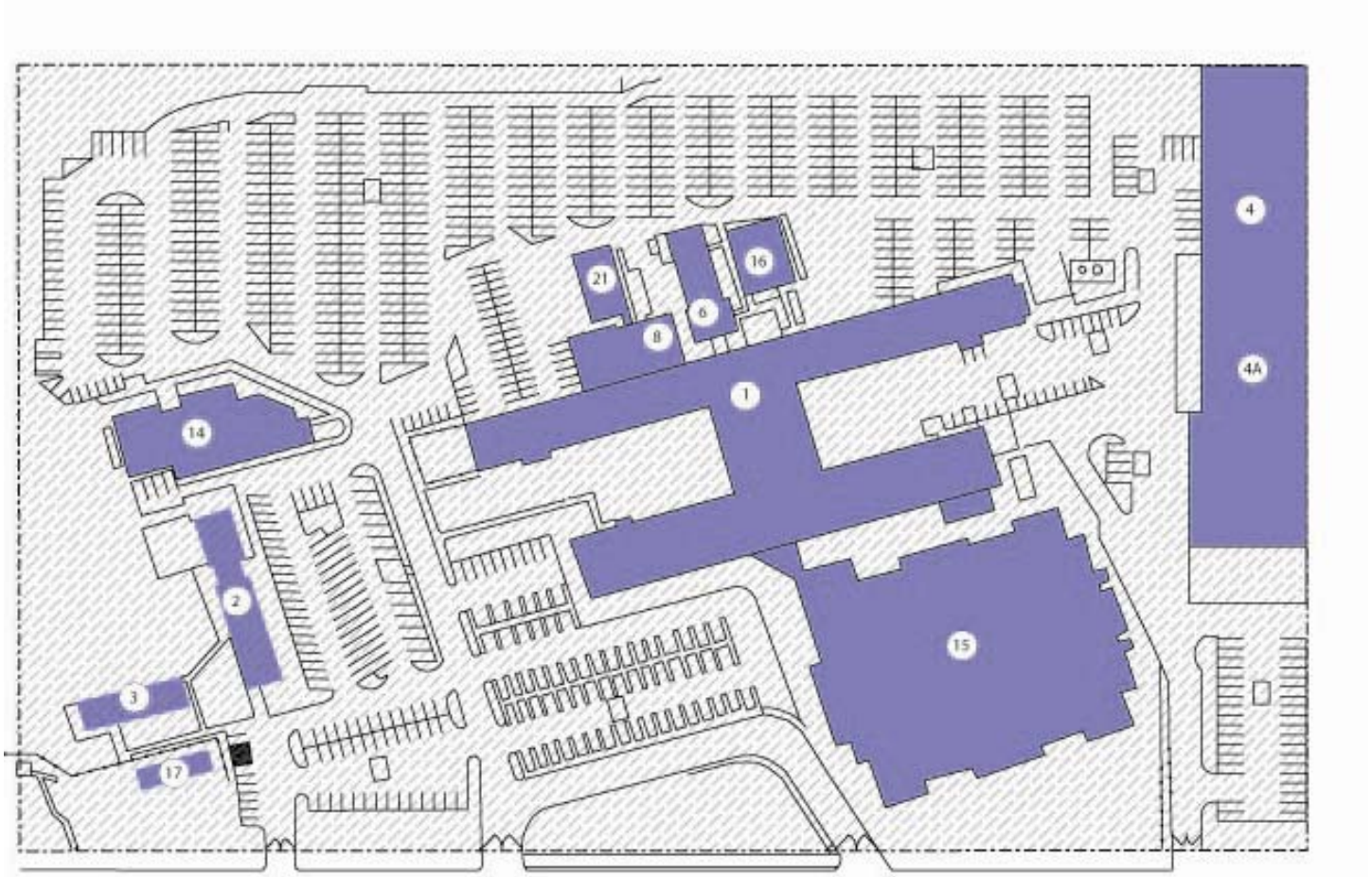
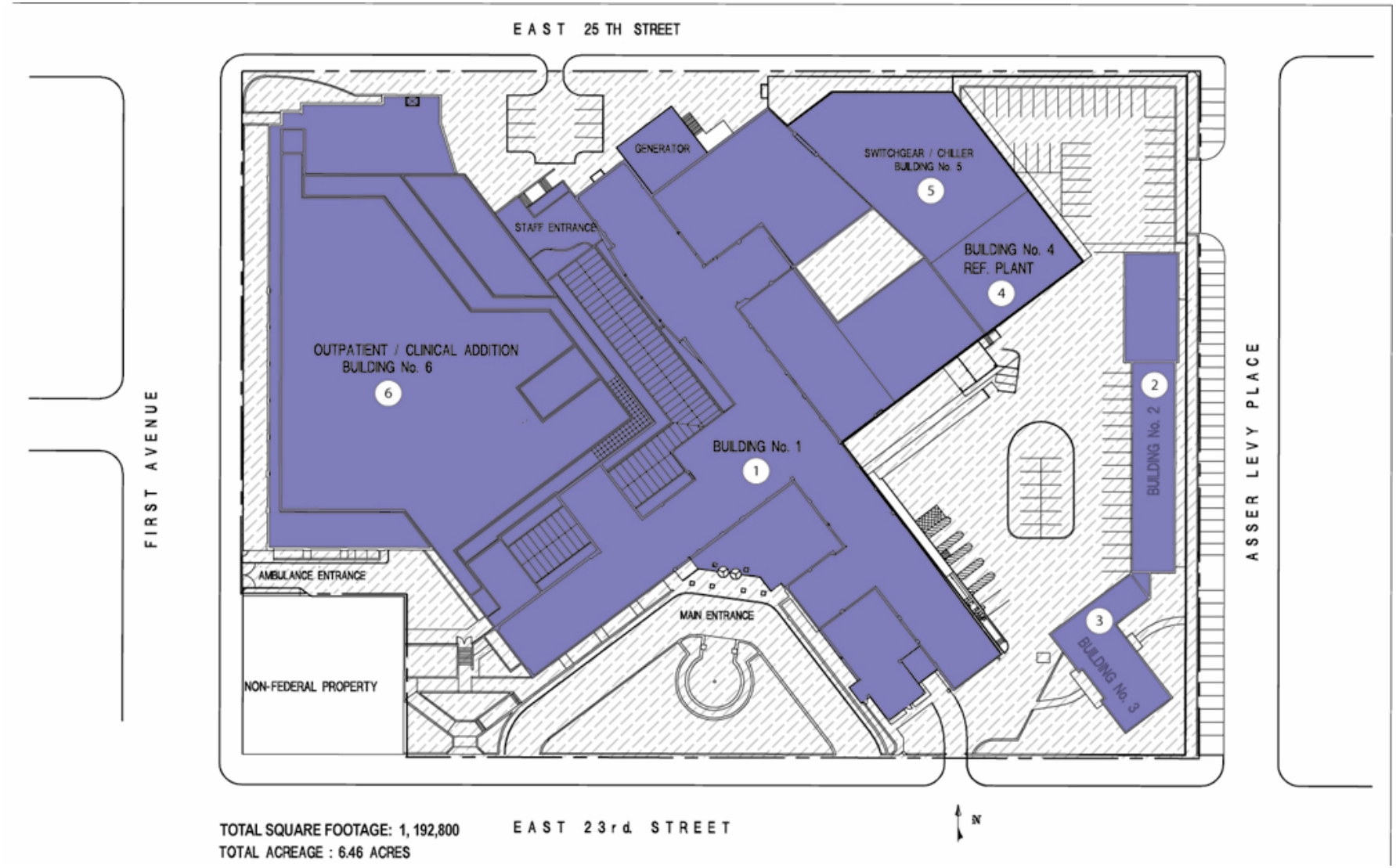


Figure 9 - BPO 1 Site Plan - Manhattan Campus



BPO 2: Consolidate at Brooklyn Campus and Expand Harlem and SoHo CBOCs

This BPO relocates all services from Manhattan to the Brooklyn site and expands CBOCs in Harlem and SoHo. This includes vacating the Manhattan campus completely. A new building of 185,790 square feet would be constructed to accommodate the additional need. In addition, phased renovation of the existing buildings at the Brooklyn campus would be required. The level of complexity would be low to medium. Demolition of Buildings 2 and 3 would be needed to allow space for the new building. The 222,000 square feet of surface parking will be replaced with a six-story 550,000 square foot structured parking facility. The entire Manhattan campus will be made available for re-use.

Assessment

Table 26 summarizes the assessment of BPO 2 according to the discriminating criteria.

Table 26: BPO 2 Assessment

Assessment of BPO 2	Comparison to Baseline	Description of Impact
Healthcare Access		
Primary	↔	Despite the consolidation of the Brooklyn and Manhattan campuses at Brooklyn, no material change is expected to the percentage of enrollees meeting VA drive time access guidelines for primary care. CBOC expansion will sufficiently meet the primary care access guidelines.
Acute	↔	Despite the consolidation of the Brooklyn and Manhattan campuses at Brooklyn, no material change is expected to the percentage of enrollees meeting VA drive time access guidelines for acute care. The location of the consolidated Brooklyn campus will sufficiently meet the acute care access guidelines.
Tertiary	↔	Despite the consolidation of the Brooklyn and Manhattan campuses at Brooklyn, no material change is expected to the percentage of enrollees meeting VA drive time access guidelines. The location of the consolidated Brooklyn campus will sufficiently meet the tertiary care access guidelines.
Healthcare Quality		
Quality of medical services	↔	No material change to the quality of medical services is anticipated.
Modern, safe, and secure environment	↑	New construction improves adherence to modern, safe, and secure standards compared to only renovations in the baseline.

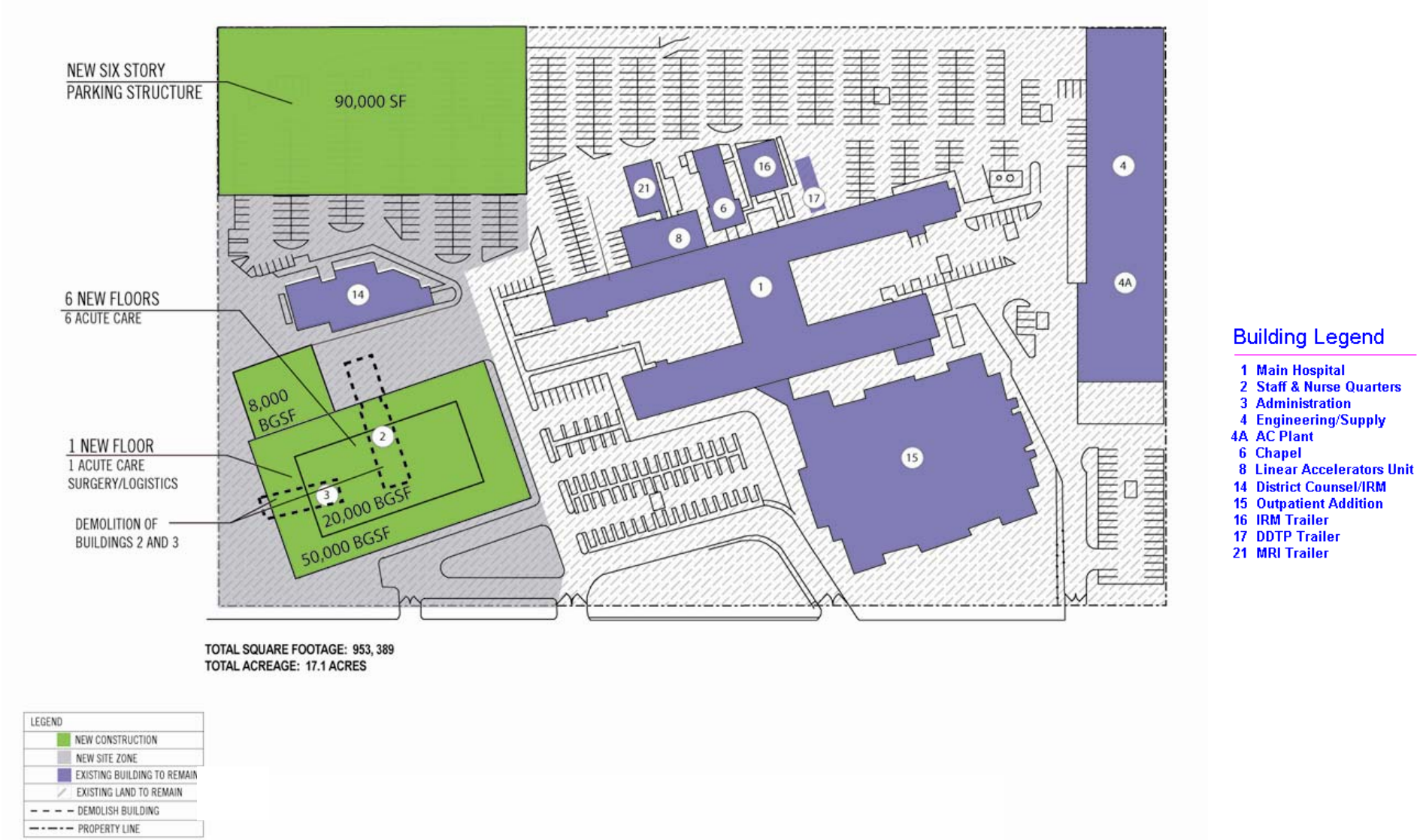
Assessment of BPO 2	Comparison to Baseline	Description of Impact
Ensures forecast healthcare need is appropriately met	↔	Similar to the baseline, a replacement hospital would provide sufficient capacity to meet current and projected demand in facilities designed to serve veterans' healthcare needs.
Impact on VA and Local Community		
Human Resources: FTEE need (based on volume)	Decrease	The BPO will result in a slight decrease in FTEEs as some duplicative positions (e.g., administrative, facility maintenance, etc.) would no longer be required when services are consolidated into a single campus. Any newly hired staff required for the new CBOCs should not offset the reduction due to the consolidation.
Recruitment / retention	↓	Recruitment of key clinical leadership for Manhattan programs moving to Brooklyn will likely be required. Some turnover is likely due to staff from the Manhattan campus leaving.
Research	↓	It is likely that the consolidated Brooklyn campus will result in the elimination of Manhattan-based / NYU-sponsored programs.
Education and Academic Affiliations	↓	It is likely that the consolidated Brooklyn campus will result in the elimination of Manhattan-based / NYU-sponsored education and academic affiliations.
Use of VA Resources		
Operating cost effectiveness	↑	The BPO has the potential to provide some recurring operating cost savings compared to the baseline BPO (5%). New construction and the consolidation of services will provide for greater staffing and other potential efficiencies.
Level of capital expenditures estimated	-	New construction results in similar level of investment required relative to the renovation investment required in baseline BPO (80% to 120%).
Level of re-use proceeds	↑↑↑	By completely vacating the Manhattan campus, BPO 2 results in a significantly higher level of re-use proceeds compared to the baseline BPO (e.g. 2 or more times).
Cost avoidance opportunities	-	Despite some recurring maintenance and renovation cost savings, BPO 2 does not result in any material cost avoidance opportunities.
Overall cost effectiveness	↑↑	BPO 2 has a significantly lower net present cost relative to the baseline BPO (85% to 90%). The new construction costs in BPO 2 are similar to the renovation costs in the baseline. New construction results in operating cost efficiencies. The operating cost efficiencies and re-use proceeds from vacating the Manhattan campus result in the greater overall cost effectiveness of BPO 2.

Assessment of BPO 2	Comparison to Baseline	Description of Impact
Ease of Implementation	↓	BPO 2 results in a greater level of risk compared to the baseline in terms of the following major risk areas: • Political, since significant negative feedback is likely from Manhattan veterans, Manhattan affiliates, and elected officials. • It is likely that the loss of the Manhattan affiliates would result in the loss of the Center of Excellence designation, unless VA is able to replace the affected physicians with physicians of equivalent expertise and stature • Reputation, since negative community reaction to the consolidation could tarnish the VA's image in New York • Veterans who utilize the Manhattan campus generally travel to the campus by public transportation. Closing the Manhattan campus would create challenges for some veterans traveling to the Brooklyn campus.
Ability to Support VA Programs		
DoD sharing	↓	The loss of the Manhattan campus could possibly negatively impact DoD sharing agreements.
One-VA Integration	↔	BPO 2 is not expected to materially impact current lease arrangements with the VBA.
Special Considerations	↓	Eliminating the Manhattan campus in BPO 2 will result in the loss of a Homeland Security readiness station. This will adversely impact disaster preparedness for the city of New York.
Overall Attractiveness	-	Despite the attractiveness related to significantly increased cost effectiveness and the significant re-use proceeds, this BPO negatively impacts research and education affiliations, recruitment and retention, DoD sharing, and Homeland Security affiliations. Implementation risk will also likely increase. Therefore, its overall attractiveness is general similar to the baseline.

Capital Planning Information

Figure 10 provides a summary of the proposed conceptual site plan for BPO 2.

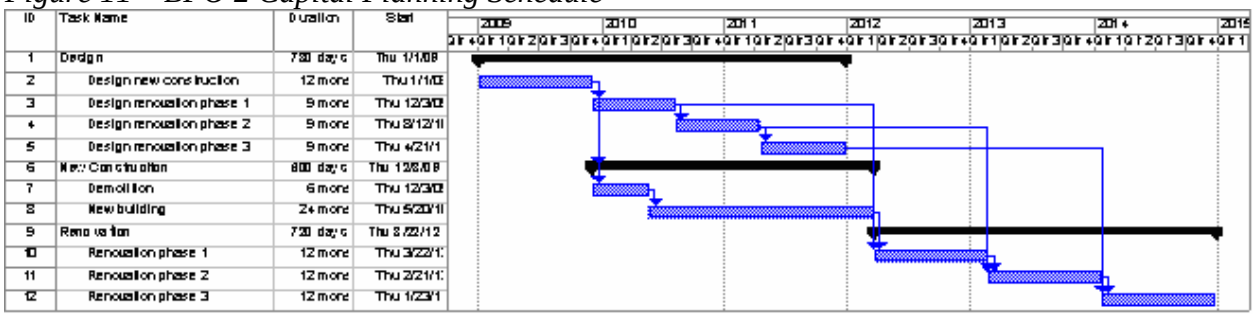
Figure 10 - BPO 2 Site Plan for Brooklyn Campus



Schedule

Schedules for development in Stage I are intended to identify relative duration of new or renovated work in order to calculate occupancy date for utilization of space and escalation costs. Figure 11 indicates the construction duration for this option.

Figure 11 – BPO 2 Capital Planning Schedule



BPO 3: Consolidate at Manhattan Campus, Develop New Queens and Borough Hall CBOCs

This BPO relocates all services from Brooklyn to the Manhattan site and develops new CBOCs in Queens and Borough Hall. This includes vacating the Brooklyn campus completely. New CBOCs in Queens and at Borough Hall in Brooklyn would be constructed. New construction of a 345,244 square foot building would be needed to accommodate all services on the Manhattan campus. In addition to the new construction, phased renovation of the existing buildings on the Manhattan campus would be required. The level of complexity required for the renovations would be low to medium, except for the renovations for behavioral health, which are high. Demolition of Buildings 2 (Engineering) and 3 (Quarters) would be required to allow space for the new building. Due to the fact that Manhattan is an urban site and the majority of the veterans rely on mass transit, no new parking is allocated for the Manhattan campus. The entire Brooklyn campus will be made available for re-use.

Assessment

Table 27 summarizes the assessment of BPO 3 according to the discriminating criteria.

Table 27: BPO 3 Assessment

Assessment of BPO 3	Comparison to Baseline	Description of Impact
Healthcare Access		
Primary	↔	Despite the consolidation of the Brooklyn and Manhattan campuses at Manhattan, no material change is expected to the percentage of enrollees meeting VA drive time access guidelines for primary care. CBOC expansion will sufficiently meet the primary care access guidelines.
Acute	↔	Despite the consolidation of the Brooklyn and Manhattan campuses at Manhattan, no material change is expected to the percentage of enrollees meeting VA drive time access guidelines for acute care. The location of the consolidated Manhattan campus will sufficiently meet the acute care access guidelines.
Tertiary	↔	Despite the consolidation of the Brooklyn and Manhattan campuses at Manhattan, no material change is expected to the percentage of enrollees meeting VA drive time access guidelines. The location of the consolidated Manhattan campus will sufficiently meet the tertiary care access guidelines.
Healthcare Quality		
Quality of medical services	↔	No material change to the quality of medical services is anticipated.

Assessment of BPO 3	Comparison to Baseline	Description of Impact
Modern, safe, and secure environment	↑	Some new construction improves adherence to modern, safe, and secure standards.
Ensures forecast healthcare need is appropriately met	↔	The replacement hospital and new CBOCs would provide sufficient capacity to meet current and projected demand in facilities designed to serve veterans' healthcare needs.
Impact on VA and Local Community		
Human Resources: FTEE need (based on volume)	Decrease	The BPO will result in a slight decrease in FTEEs as some duplicative positions (e.g. administrative, engineering, etc.) would no longer be required when services are consolidated into a single campus. Any new staff required for the CBOCs should not offset the reduction due to the consolidation.
Recruitment / retention	↓	Recruitment of key clinical leadership for specialty services moving from Brooklyn to Manhattan will likely be required. The affect on recruitment will be more significant on the inpatient/hospital-based programs and services. Some turnover is likely due to staff from the Brooklyn campus leaving.
Research	↔	It is likely that the consolidated Manhattan campus will result in the elimination of Brooklyn-based specialty programs. However, since the Brooklyn-based research is relatively minor, this effect is not material to the overall research initiatives of NYHHS.
Education and Academic Affiliations	↓	It is likely that the consolidated Manhattan campus will result in the elimination of Brooklyn-based programs. The consolidated Manhattan campus will require new affiliations to be formed to replace the Brooklyn affiliations.
Use of VA Resources		
Operating cost effectiveness	↑	The BPO has the potential to provide some recurring operating cost savings compared to the baseline BPO (5%). New construction and the consolidation of services will provide for greater staffing and other potential efficiencies.
Level of capital expenditures estimated	↓↓	Capital expenditures for new construction and renovations are significantly greater (121% to 199%) than the capital expenditures for renovation in the baseline.
Level of re-use proceeds	↑↑↑	By completely vacating the Brooklyn campus, this BPO results in a significantly higher level of re-use proceeds compared to the baseline BPO (e.g. 2 or more times).
Cost avoidance opportunities	-	Despite some recurring maintenance and renovation cost savings, BPO 3 does not result in any material cost avoidance opportunities.

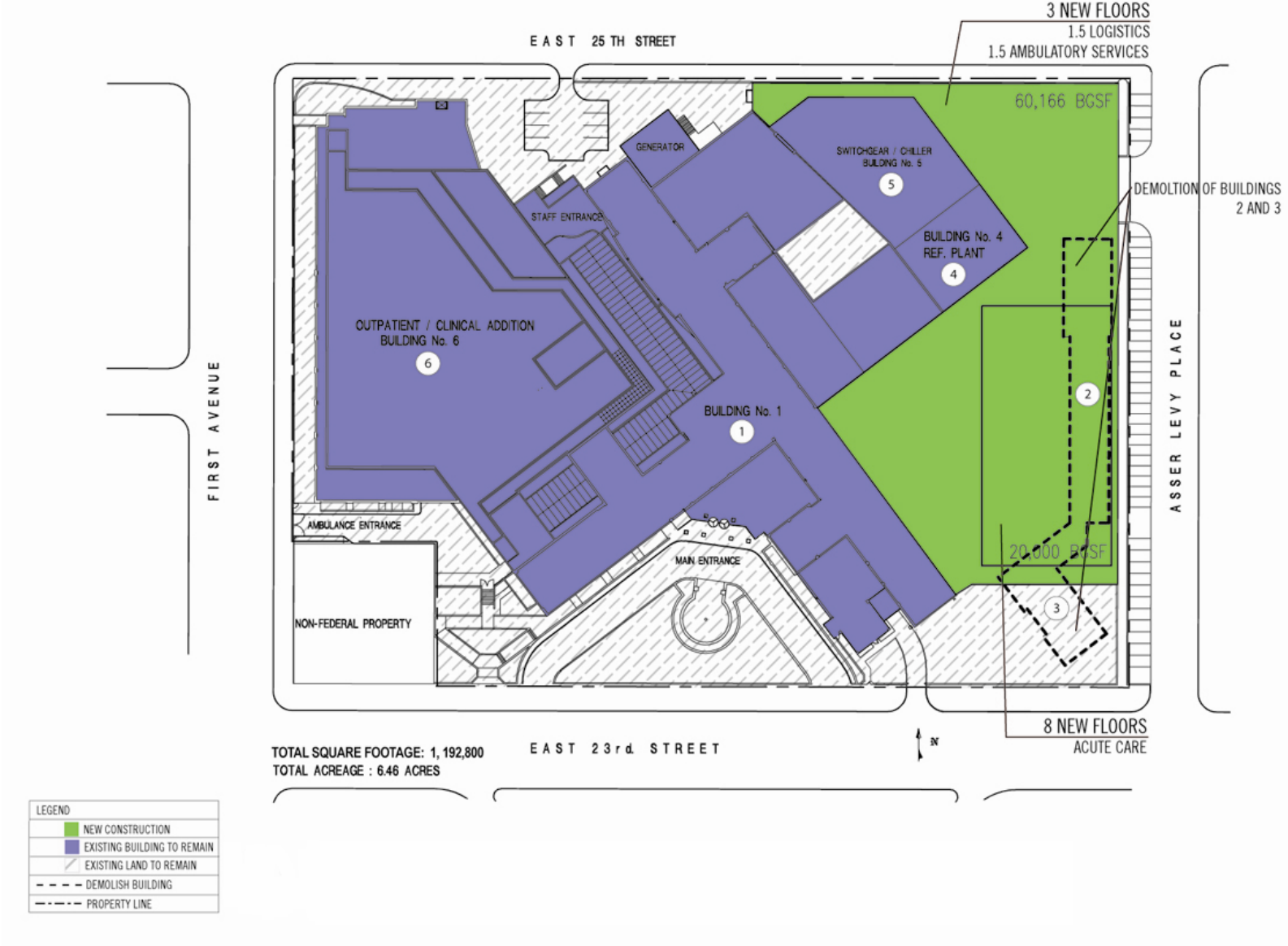
Assessment of BPO 3	Comparison to Baseline	Description of Impact
Overall cost effectiveness	↑	BPO 3 has a lower net present cost relative to the baseline BPO (90% to 95%). The new construction results in operating cost efficiencies. The operating cost efficiencies and re-use proceeds from vacating the Brooklyn campus results in the greater overall cost effectiveness of this BPO.
Ease of Implementation		
Riskiness of BPO implementation	↓	This BPO is more risky than the baseline in terms of the following major risk categories: • Continuity of Care, since the BPO may require additional contracting for service with private hospitals during transition of specialty services. • It is likely that the loss of the Brooklyn specialty programs would adversely affect the services offered to New York veterans, unless VA is able to replace the affected physicians with physicians of equivalent expertise and stature • Political, since significant negative feedback is likely from Brooklyn veterans, Brooklyn affiliates, and elected officials. • Reputation, since negative community reaction to the consolidation could tarnish the VA's image in New York • Brooklyn veterans generally rely on automobiles when commuting to the Brooklyn campus. A consolidated Manhattan campus would create challenges for some veterans commuting to the Manhattan campus, due to lack of parking, etc.
Ability to Support VA Programs		
DoD sharing	↓	The loss of the Brooklyn campus may negatively impact DoD sharing agreements. Brooklyn is currently the clinical site for the Military Entrance Processing Station and the return-to-US orientation and care for current Iraq/Afghanistan servicemen and women.
One-VA Integration	↔	Consolidation at Manhattan neither promotes nor precludes the furthering of One-VA integration.
Special Considerations	↓	Eliminating the Brooklyn campus will result in the loss of a Homeland Security readiness station. This will adversely impact disaster preparedness for the city of New York.

Assessment of BPO 3	Comparison to Baseline	Description of Impact
Overall Attractiveness	-	Despite the attractiveness related to increased cost effectiveness and the significant re-use proceeds, this BPO negatively impacts education and academic affiliations, recruitment and retention, DoD sharing, and Homeland Security affiliations. Significantly greater capital investment will be required compared to baseline, and implementation risk will likely also increase. Therefore, this BPO's overall attractiveness is generally similar to the baseline.

Capital Planning Information

Figure 12 provides a summary of the proposed conceptual site plan for BPO 3.

Figure 12 - BPO 3 Site Plan for Consolidated Manhattan Campus

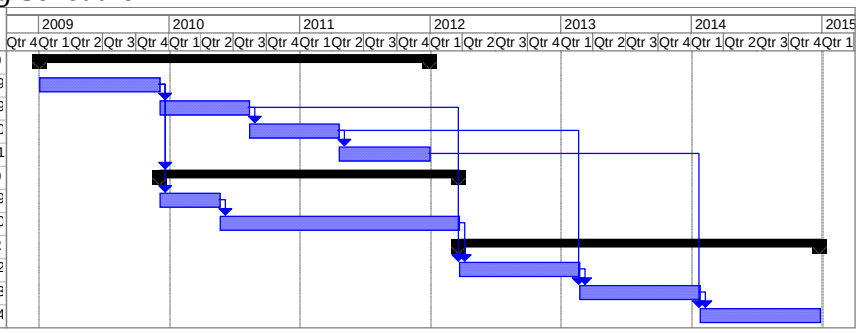


Schedule

Schedules for development in Stage I are intended to identify relative duration of new or renovated work in order to calculate occupancy date for utilization of space and escalation costs. Figure 13 indicates the construction duration for this option.

Figure 13 – BPO 3 Capital Planning Schedule

ID	Task Name	Duration	Start
1	**Design**	**780 days**	**Thu 1/1/09**
2	Design new construction	12 mons	Thu 1/1/09
3	Design renovation phase 1	9 mons	Thu 12/3/09
4	Design renovation phase 2	9 mons	Thu 8/12/10
5	Design renovation phase 3	9 mons	Thu 4/21/11
6	**New Construciton**	**600 days**	**Thu 12/3/09**
7	Demolition	6 mons	Thu 12/3/09
8	New building	24 mons	Thu 5/20/10
9	**Renovation**	**720 days**	**Thu 3/22/12**
10	Renovation phase 1	12 mons	Thu 3/22/12
11	Renovation phase 2	12 mons	Thu 2/21/13
12	Renovation phase 3	12 mons	Thu 1/23/14



BPO 4: Consolidate Inpatient Only at Manhattan Campus, Retain Brooklyn Ambulatory Services at Poly Place, Develop New Queens and Borough Hall CBOCs

This BPO relocates all inpatient services from Brooklyn to the Manhattan site. This includes vacating the Brooklyn campus completely with the exception of the ambulatory services pavilion. In addition, this BPO involves the construction or lease of a CBOC in Queens and a CBOC at Borough Hall in Brooklyn. The two new CBOCs are provided to increase the distribution of services to locations where veterans live, along primary public transportation routes. Consistent with the Secretary's Decision Document, these new CBOCs will include specialty and mental health services to provide a more robust array of clinical programs in a community setting. Phased renovation of the existing buildings on the Manhattan campus would be required. The level of complexity required for the renovations would be low to medium, except for the renovations for behavioral health, which are high. No new construction would be needed to accommodate all inpatient services on the Manhattan campus. Due to the fact that Manhattan is an urban site and the majority of the veterans rely on mass transit, no new parking is allocated for the Manhattan campus. The highly integrated infrastructure at the Brooklyn campus does not facilitate partial re-use. Therefore, there is no re-use potential associated with this BPO.

Assessment

Table 28 summarizes the assessment of BPO 4 according to the discriminating criteria.

Table 28: BPO 4 Assessment

Assessment of BPO 4	Comparison to Baseline	Description of Impact
Healthcare Access		
Primary	↔	No material change is expected to the percentage of enrollees meeting VA drive time access guidelines. Expanded CBOCs will ensure access standards are met.
Acute	↔	Despite the consolidation of Brooklyn and Manhattan inpatient services at the Manhattan campus, no material change is expected to the percentage of enrollees meeting VA drive time access guidelines. The consolidated inpatient services at Manhattan will sufficiently meet acute drive time guidelines.
Tertiary	↔	Despite the consolidation of Brooklyn and Manhattan inpatient services at the Manhattan campus, No material change is expected to the percentage of enrollees meeting VA drive time access guidelines. The consolidated inpatient services at Manhattan will sufficiently meet tertiary drive time guidelines.

Assessment of BPO 4	Comparison to Baseline	Description of Impact
Healthcare Quality		
Quality of medical services	↔	No material change to the quality of medical services is anticipated.
Modern, safe, and secure environment	↔	Renovations result in similar adherence to modern, safe, and secure standards as in the baseline.
Ensures forecast healthcare need is appropriately met	↔	The replacement hospital and new CBOCs would provide sufficient capacity to meet current and projected demand in facilities designed to serve veterans' healthcare needs.
Impact on VA and Local Community		
Human Resources: FTEE need (based on volume)	Decrease	The BPO will result in a slight decrease in FTEEs as some duplicative positions (e.g. administrative, engineering, etc.) would no longer be required when specific (e.g. inpatient at Manhattan) services are consolidated into a single campus. Any new staff required for the CBOCs should not offset the reduction due to the consolidation.
Recruitment / retention	↓	Recruitment of key clinical leadership for specialty services moving from Brooklyn to Manhattan will likely be required. Some turnover is likely due to staff from the Brooklyn campus leaving.
Research	↔	It is likely that the consolidated inpatient services at Manhattan will result in the elimination of Brooklyn-based programs. However, since the Brooklyn-based research is relatively minor, this effect is not material to the overall research initiatives of NYHHS.
Education and Academic Affiliations	↓	It is likely that the consolidated inpatient services at Manhattan will result in the elimination of Brooklyn-based inpatient programs.
Use of VA Resources		
Operating cost effectiveness	-	Although operating efficiencies may be gained through new CBOCs and renovated facilities, the estimated savings are not expected to be significant. The BPO has the potential to require materially the same operating costs as the baseline BPO.
Level of capital expenditures estimated	↓↓	Capital expenditures for construction of new CBOCs and renovations to existing buildings are significantly greater (121% to 199%) than the capital expenditures for renovation in the baseline.
Level of re-use proceeds	-	The highly integrated infrastructure at the Brooklyn campus does not facilitate partial re-use. Therefore, there is no re-use potential in this BPO.
Cost avoidance opportunities	-	Despite some recurring maintenance and renovation cost savings, BPO 4 does not result in any material cost avoidance opportunities.
Overall cost effectiveness	-	Operating costs are similar to the baseline. Although the capital expenditures required are higher than the baseline, they are not significant enough to increase the overall net present cost compared to the baseline.

Assessment of BPO 4	Comparison to Baseline	Description of Impact
Ease of Implementation		
Riskiness of BPO implementation	↓	This BPO is more risky than the baseline in terms of the following risk major categories: • Continuity of Care, since this BPO may require additional contracting for service with private hospitals during transition of inpatient specialty services. • Political, since significant negative feedback is likely from Brooklyn veterans, Brooklyn affiliates, and elected officials. • The potential exists that veterans may have to travel to both campuses or a campus that is further away to receive care. This would create challenges, depending on the form of transportation the veteran relies upon. • It is likely that the loss of the Brooklyn inpatient specialty programs would adversely affect the services offered to New York veterans, unless VA is able to replace the affected physicians with physicians of equivalent expertise and stature • Reputation, since negative community reaction to the consolidation could tarnish VA's image in New York
Ability to Support VA Programs		
DoD sharing	↔	This BPO is not expected to materially impact DoD sharing agreements.
One-VA Integration	↔	Consolidation by service type neither promotes nor precludes the furthering of One-VA integration.
Special Considerations	↔	This BPO is not expected to materially impact the ability of VA NYHHS to support Homeland Security disaster preparedness.
Overall Attractiveness	↓↓	BPO 4 results in a similar net present cost as the baseline. However, this BPO negatively impacts research and education affiliations, and recruitment and retention. Implementation risk will also likely increase. This results in a less attractive option when compared to the baseline.

Capital Planning Information

Figures 14 and 15 provide a summary of the proposed conceptual site plan for BPO 4.

Figure 14 - BPO 4 Site Plan for Brooklyn Campus

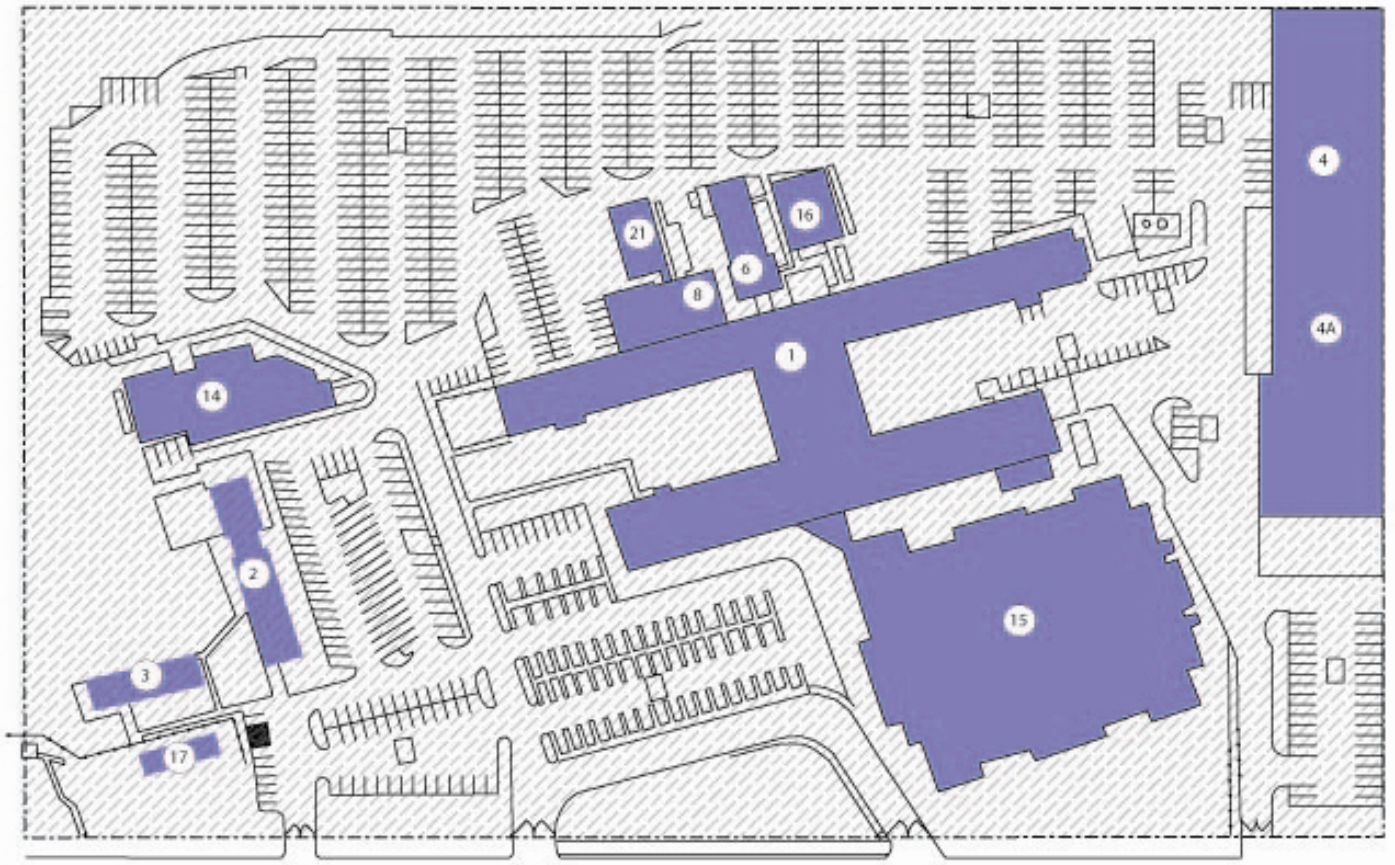
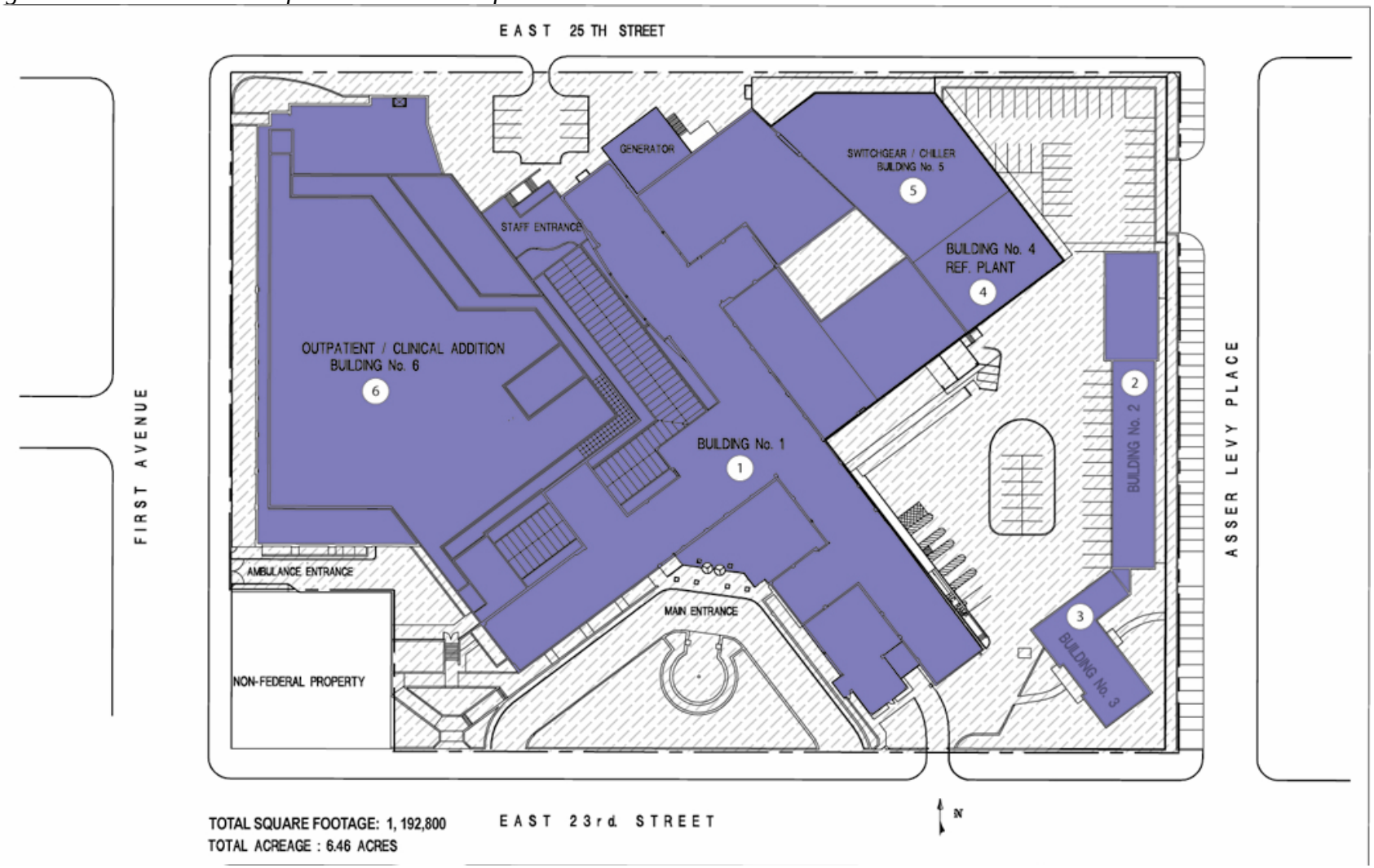


Figure 15 - BPO 4 Site Plan for Manhattan Campus

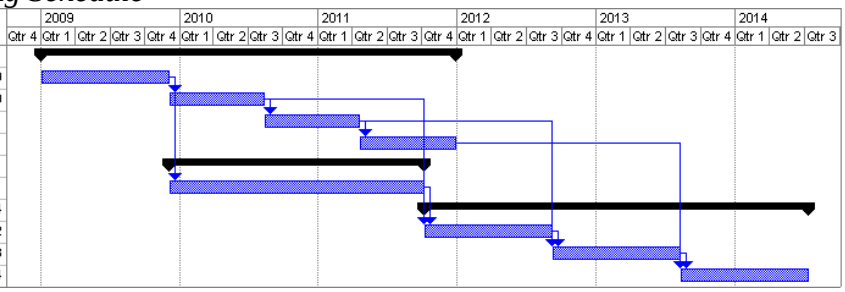


Schedule

Schedules for development in Stage I are intended to identify relative duration of new or renovated work in order to calculate occupancy date for utilization of space and escalation costs. Figure 16 indicates the construction duration for this option.

Figure 16 – BPO 4 Capital Planning Schedule

ID	Task Name	Start	Finish
1	**Design**	**Thu 1/1/09**	**Wed 12/28/11**
2	Design new construction	Thu 1/1/09	Wed 12/2/09
3	Design renovation phase 1	Thu 12/3/09	Wed 8/11/10
4	Design renovation phase 2	Thu 8/12/10	Wed 4/20/11
5	Design renovation phase 3	Thu 4/21/11	Wed 12/28/11
6	**New Construciton**	**Thu 12/3/09**	**Wed 10/5/11**
7	New building	Thu 12/3/09	Wed 10/5/11
8	**Renovation**	**Thu 10/6/11**	**Wed 7/9/14**
9	Renovation phase 1	Thu 10/6/11	Wed 9/5/12
10	Renovation phase 2	Thu 9/6/12	Wed 8/7/13
11	Renovation phase 3	Thu 8/8/13	Wed 7/9/14



BPO 5: Convert Manhattan Campus to Medical/Surgical, Convert Brooklyn Campus to Psychiatry/Behavioral Health

This BPO involves shifting inpatient and outpatient medical/surgical services to one location and psychiatry and behavioral health to another. Inpatient and outpatient medical/surgical services would be moved to the Manhattan campus. Psychiatry and behavioral health services would be moved to the Brooklyn campus. In addition, phased renovation of the existing buildings on the Manhattan campus would be required. The level of complexity required for the renovations would be low to medium for ambulatory care and support functions, and high for acute care. There would be 22,669 square feet of unused space at the Manhattan campus. Phased renovations of the existing buildings on the Brooklyn campus would be needed. The level of complexity required for the renovations is low and medium for ambulatory care and support functions, and high for acute care, psychiatry, and behavioral health. There would be 471,490 square feet of unused space at the Brooklyn campus. Building 2 would be vacated as it would be surplus space. Due to the fact that Manhattan is an urban site and the majority of veterans rely on mass transit, no new parking is allocated for the Manhattan campus. Current parking at the Brooklyn campus is considered sufficient. Neither the Brooklyn nor Manhattan campuses are easily parceled out for re-use due to highly integrated campus infrastructures. No land or buildings will be made available for re-use in BPO 5.

Assessment

Table 29 summarizes the assessment of BPO 5 according to the discriminating criteria.

Table 29: BPO 5 Assessment

Assessment of BPO 5	Comparison to Baseline	Description of Impact
Healthcare Access		
Primary	↔	Despite the shift in service lines, no material change is expected to the percentage of enrollees meeting VA drive time access guidelines. Primary care services will remain at the same location as the baseline.
Acute	↔	Despite the shift in service lines, no material change is expected to the percentage of enrollees meeting VA drive time access guidelines for acute care.
Tertiary	↔	Despite the shift in service lines, no material change is expected to the percentage of enrollees meeting VA drive time access guidelines for tertiary care.
Healthcare Quality		
Quality of medical services	↔	No material change to the quality of medical services is anticipated.
Modern, safe, and secure environment	↑	This BPO requires extensive renovations at both sites, and the realignment of services will result in a better match of building to function by campus than is provided by renovations in the baseline.

Assessment of BPO 5	Comparison to Baseline	Description of Impact
Ensures forecast healthcare need is appropriately met	↔	Renovated facilities will provide sufficient capacity to meet current and projected demand in facilities designed to serve veterans' healthcare needs.
Impact on VA and Local Community		
Human Resources: FTEE need (based on volume)	Decrease	The BPO will result in a slight decrease in FTEEs as some duplicative positions (e.g. administrative, engineering, etc.) would no longer be required when specific (e.g. medical/surgical at Manhattan) services are consolidated into a single campus.
Recruitment / retention	↔	The renovations are not expected to impact recruitment or retention at Brooklyn or Manhattan.
Research	↔	The renovated facilities are not expected to alter research programs at Brooklyn or Manhattan.
Education and Academic Affiliations	↔	With the exception of some slight adjustments, it is likely the current education and academic affiliations will remain the same as in the baseline.
Use of VA Resources		
Operating cost effectiveness	-	Although operating efficiencies may be gained through renovated facilities, the estimated savings are not expected to be significant compared to the baseline. Therefore, the BPO has the potential to require materially the same operating costs as the baseline.
Level of capital expenditures estimated	-	Capital expenditures for renovations in BPO 5 are similar to the capital expenditures for renovations in the baseline.
Level of re-use proceeds	-	This BPO does not result in any significant vacation of property. No material re-use proceeds are therefore expected since no re-use property would be available.
Cost avoidance opportunities	-	This BPO requires renovations, the costs of which are similar to the renovations required by the baseline. Therefore, there are no cost avoidance opportunities in terms of capital investment.
Overall cost effectiveness	-	Operating costs and capital expenditures are similar to the baseline. Thus, the BPO results in a similar level of net present cost as compared to the baseline.

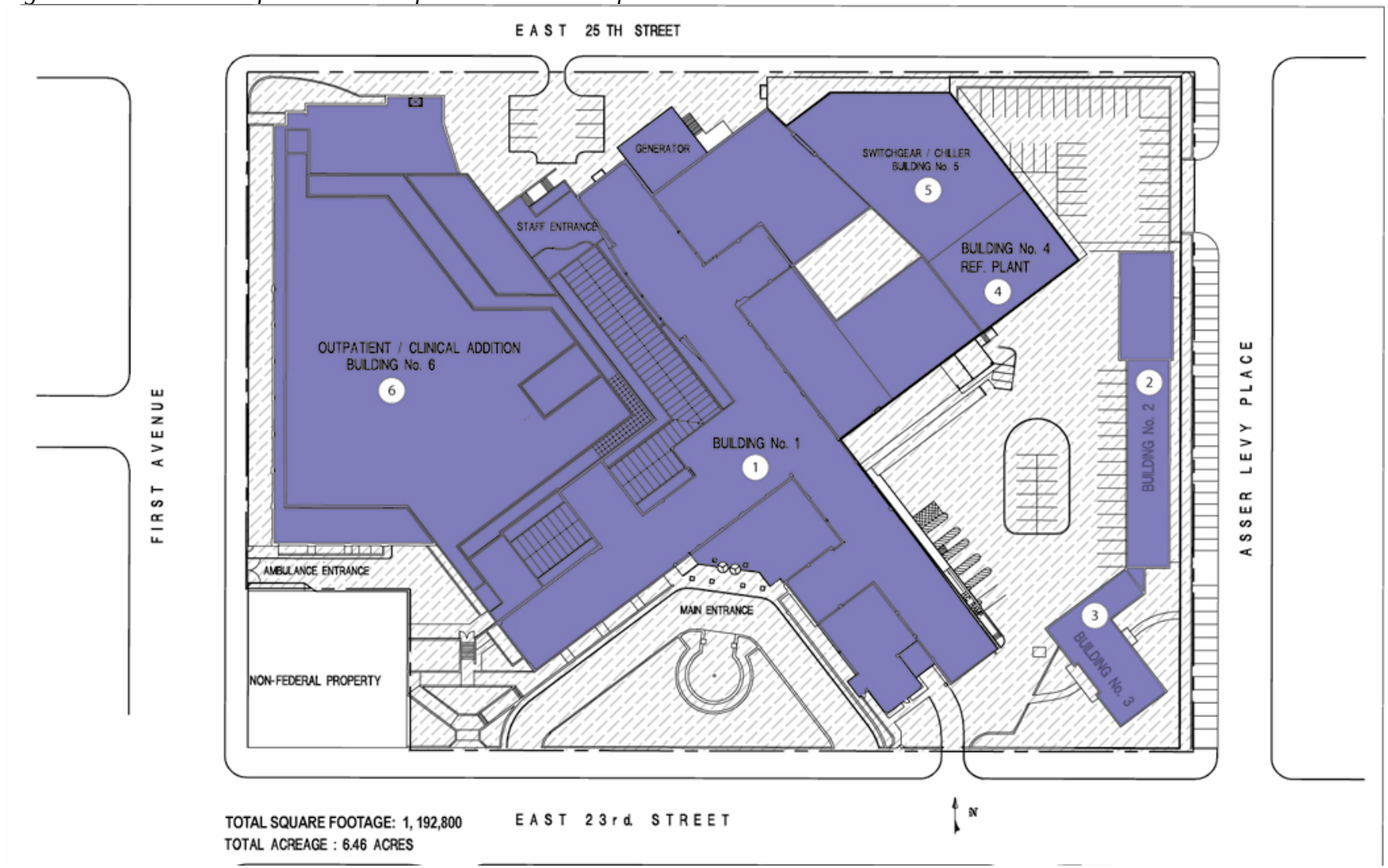
Assessment of BPO 5	Comparison to Baseline	Description of Impact
Ease of Implementation		
Riskiness of BPO implementation	↓	This BPO is more risky than the baseline in terms of the following major risk categories: • Segregating medical/surgical and psychiatry/behavioral health between two different campuses runs counter to contemporary care models. • In this BPO it would be common for a veteran to have to routinely access both campuses for their care. For example, Manhattan veterans with mental health needs who also have established relationships with medical or surgical specialists at Manhattan. • Continuity of Care, patient disruption is likely during the transition. • Political, since significant negative feedback is likely from Brooklyn veterans, Brooklyn affiliates, and elected officials. • Reputation, since negative public reaction could tarnish the VA's image in New York City.
Ability to Support VA Programs		
DoD sharing	↔	This BPO is not expected to materially impact DoD sharing agreements.
One-VA Integration	↔	Converting by service type neither promotes nor precludes the furthering of One-VA integration.
Special Considerations	↔	This BPO is not expected to materially impact the ability of VA NYHHS to support Homeland Security disaster preparedness.
Overall Attractiveness	↓↓	BPO 5 results in a similar net present cost as the baseline. However, it is likely that the implementation risk will be much higher than the baseline. This results in a less attractive option when compared to the baseline.

Capital Planning Information

Figures 17 and 18 provide a summary of the proposed conceptual site plan for BPO 5.

Figure 17 - BPO 5 Conceptual Site Plan for Brooklyn Campus

Figure 18: BPO 5 Conceptual Site Plan for Manhattan Campus

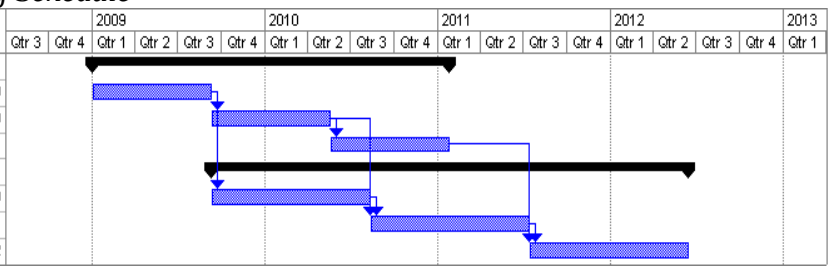


Schedule

Schedules for development in Stage I are intended to identify relative duration of new or renovated work in order to calculate occupancy date for utilization of space and escalation costs. Figure 19 indicates the construction duration for this option.

Figure 19 – BPO 5 Capital Planning Schedule

ID	Task Name	Start	Finish
1	**Design**	**Thu 1/1/09**	**Wed 1/26/11**
2	Design renovation phase 1	Thu 1/1/09	Wed 9/9/09
3	Design renovation phase 2	Thu 9/10/09	Wed 5/19/10
4	Design renovation phase 3	Thu 5/20/10	Wed 1/26/11
5	**Renovation**	**Thu 9/10/09**	**Wed 6/13/12**
6	Renovation phase 1	Thu 9/10/09	Wed 8/11/10
7	Renovation phase 2	Thu 8/12/10	Wed 7/13/11
8	Renovation phase 3	Thu 7/14/11	Wed 6/13/12



BPO 6: Service Line Consolidation: Cardiology / Orthopedics / Women's Health to Manhattan; Oncology to Brooklyn

The BPO involves consolidating at a specialty level. General medical/surgical services would remain available at both campuses. Cardiology, orthopedics, and women's health would consolidate at the Manhattan campus. Oncology would consolidate at the Brooklyn campus. Phased renovation of the existing buildings on the Manhattan campus would be required. The level of complexity required for the renovations would be low to medium for ambulatory care and support functions, and high for acute care. There would be 161,099 square feet of unused space at the Manhattan campus. Phased renovation of the existing buildings on the Brooklyn campus would be needed. The level of complexity required for the renovations would be low to medium for ambulatory care and support functions, and high for acute care and behavioral health. There would be 315,270 square feet of unused space at the Brooklyn campus. Building 2 would be vacated as it would be surplus space. Due to the fact that Manhattan is an urban site and the majority of veterans rely on mass transit, no new parking is allocated for the Manhattan campus. Current parking at the Brooklyn campus is considered sufficient. Neither the Brooklyn nor Manhattan campuses are easily parceled out for re-use due to highly integrated campus infrastructures. No land or buildings will be made available for re-use in BPO 6.

Assessment

Table 30 summarizes the assessment of BPO 6 according to the discriminating criteria.

Table 30: BPO 6 Assessment

Assessment of BPO 6	Comparison to Baseline	Description of Impact
Healthcare Access		
Primary	↔	No material change is expected to the percentage of enrollees meeting VA drive time access guidelines, since primary care services will remain at the same location as in the baseline.
Acute	↔	Despite the shift in service lines, no material change is expected to the percentage of enrollees meeting VA drive time access guidelines.
Tertiary	↔	Despite the shift in service lines, no material change is expected to the percentage of enrollees meeting VA drive time access guidelines.
Healthcare Quality		
Quality of medical services	↔	No material change to the quality of medical services is anticipated.
Modern, safe, and secure environment	↔	Renovations result in similar adherence to modern, safe, and secure standards as in the baseline.
Ensures forecast healthcare need is appropriately met	↔	Renovated facilities will provide sufficient capacity to meet current and projected demand in facilities designed to serve veterans' healthcare needs.

Assessment of BPO 6	Comparison to Baseline	Description of Impact
Impact on VA and Local Community		
Human Resources: FTEE need (based on volume)	Decrease	The BPO will result in a slight decrease in FTEEs as some duplicative positions (e.g. administrative, engineering, etc.) would no longer be required as specific service lines (e.g. oncology at Brooklyn) are consolidated into a single campus.
Recruitment / retention	↔	The renovations are not expected to impact recruitment or retention at Brooklyn or Manhattan.
Research	↔	The renovated facilities are not expected to alter research at Brooklyn or Manhattan.
Education and Academic Affiliations	↔	With the exception of some slight adjustments, it is likely the education and academic affiliations will remain the same as in the baseline.
Use of VA Resources		
Operating cost effectiveness	↑	The BPO has the potential to provide some recurring operating cost savings (5%) through renovations and service line consolidations.
Level of capital expenditures estimated	-	Capital expenditures for renovations in BPO 6 are similar to the capital expenditures for renovations in the baseline.
Level of re-use proceeds	-	This BPO does not result in significantly vacating either campus and, therefore, results in a similar level of re-use proceeds as compared to the baseline.
Cost avoidance opportunities	-	This BPO requires renovations, the costs of which are similar to the renovations required by the baseline. Therefore, there are no cost avoidance opportunities in terms of capital investment.
Overall cost effectiveness	-	Although this BPO provides some operating cost efficiencies, the BPO results in a similar level of net present cost as compared to the baseline.
Ease of Implementation		
Riskiness of BPO implementation	↔	While stakeholder reaction to the change in mission for both campuses may present an additional risk, this BPO appears similar in risk to the baseline.
Ability to Support VA Programs		
DoD sharing	↔	This BPO is not expected to materially impact DoD sharing agreements.
One-VA Integration	↔	Consolidating by service line neither promotes nor precludes the furthering of One-VA integration.
Special Considerations	↔	This BPO is not expected to materially impact the ability of VA NYHHS to support Homeland Security disaster preparedness.
Overall Attractiveness	-	Generally similar to the baseline.

Capital Planning Information

Figures 20 and 21 provide a summary of the proposed conceptual site plan for BPO 6.

Figure 20: BPO 6 Conceptual Site Plan for Brooklyn Campus

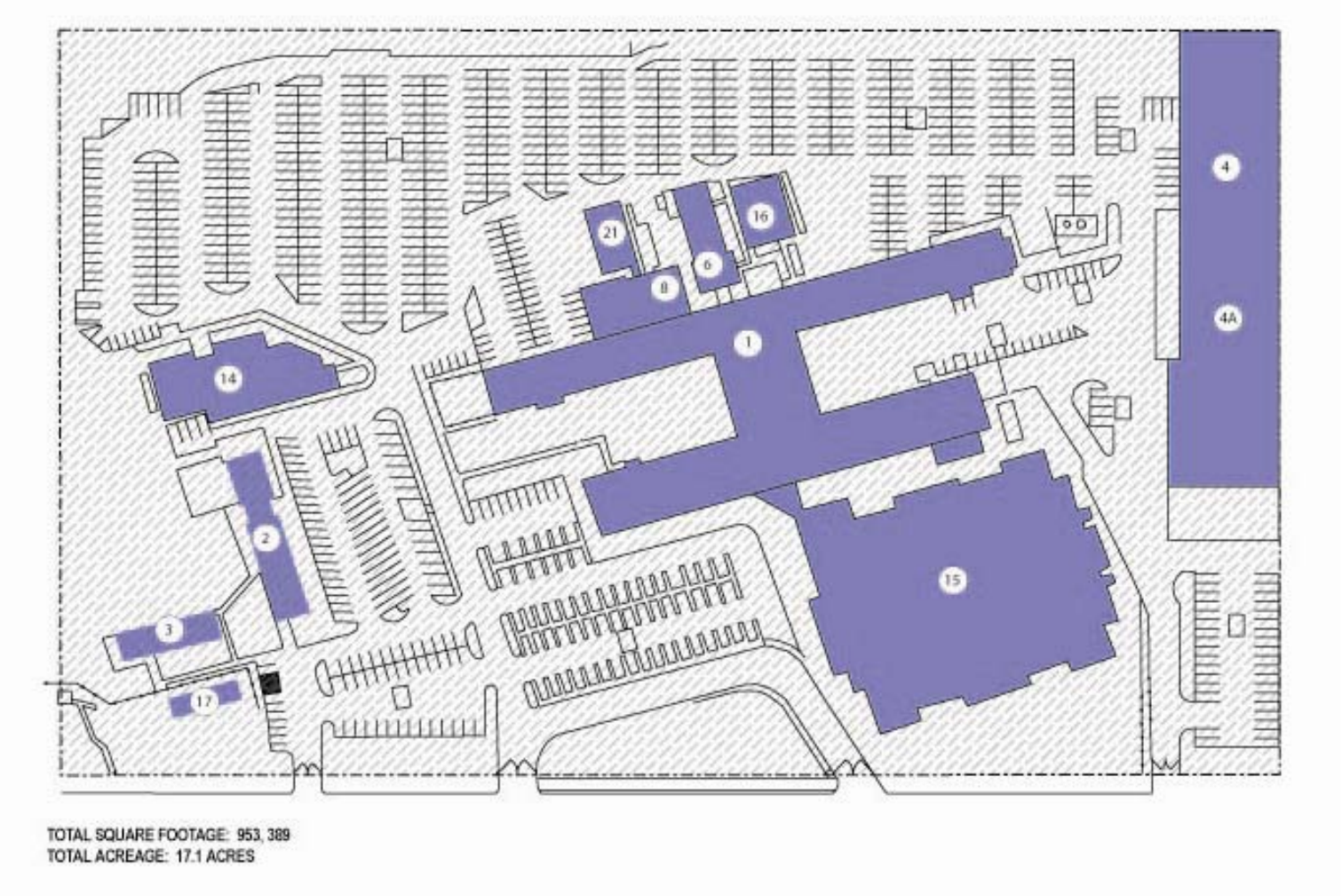
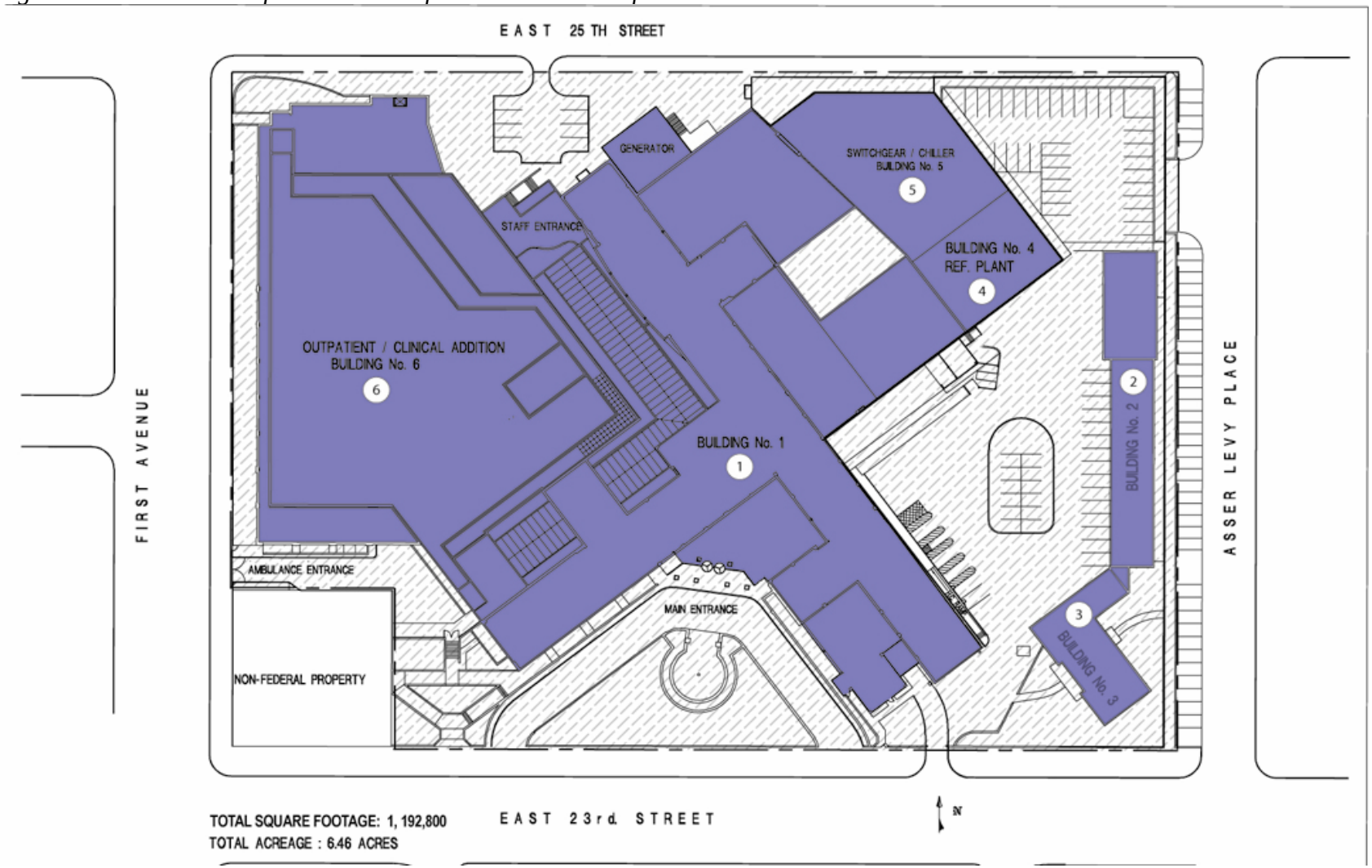


Figure 21: BPO 6 Conceptual Site Plan for Manhattan Campus

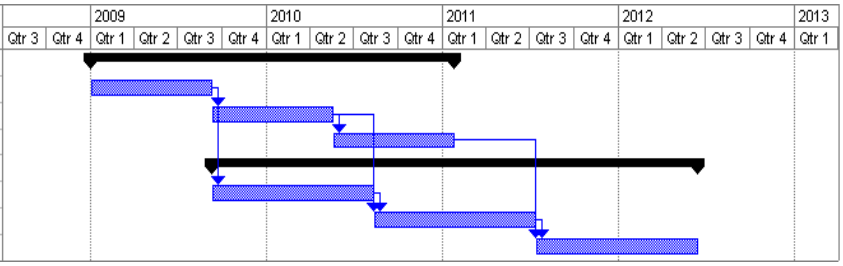


Schedule

Schedules for development in Stage I are intended to identify relative duration of new or renovated work in order to calculate occupancy date for utilization of space and escalation costs. Figure 22 indicates the construction duration for this option.

Figure 22 – BPO 6 Capital Planning Schedule

ID	Task Name	Start	Finish
1	**Design**	**Thu 1/1/09**	**Wed 1/26/11**
2	Design renovation phase 1	Thu 1/1/09	Wed 9/9/09
3	Design renovation phase 2	Thu 9/10/09	Wed 5/19/10
4	Design renovation phase 3	Thu 5/20/10	Wed 1/26/11
5	**Renovation**	**Thu 9/10/09**	**Wed 6/13/12**
6	Renovation phase 1	Thu 9/10/09	Wed 8/11/10
7	Renovation phase 2	Thu 8/12/10	Wed 7/13/11
8	Renovation phase 3	Thu 7/14/11	Wed 6/13/12



BPO 7: Incremental Realignment with New and Expansion of Existing CBOCs

This BPO involves consolidating selected sub-specialty services to enhance operating efficiency. Changes in services at the Manhattan or the Brooklyn campuses would be incremental. General medical/surgical services would remain at both campuses. This BPO extends and enhances NYHHS' initiatives to collaboratively realign services between the Brooklyn and Manhattan campuses to promote patient access and operational efficiency without upsetting the delicate balance of teaching and research interests required to sustain the academic affiliations unique to each facility. This BPO includes expansion of the existing Harlem and Chapel Street CBOCs and developing new CBOCs in Queens and outer Brooklyn. Phased renovation of the existing buildings on the Brooklyn campus would be required. The level of complexity for the renovations would be low to medium for support functions, and high for acute care, behavioral health, and ambulatory services. There would be 221,814 square feet of unused space at the Brooklyn campus. Building 2 would be vacated or demolished as it would be surplus space. Due to the fact that Manhattan is an urban site and the majority of veterans rely on mass transit, no new parking is allocated for the Manhattan campus. Current parking at the Brooklyn campus is considered sufficient. Neither the Brooklyn nor Manhattan campuses are easily parceled out for re-use due to highly integrated campus infrastructures. No land or buildings will be made available for re-use in BPO 7.

Assessment

Table 31 summarizes the assessment of BPO 7 according to the discriminating criteria.

Table 31: BPO 7 Assessment

Assessment of BPO 7	Comparison to Baseline	Description of Impact
Healthcare Access		
Primary	↔	No material change is expected to the percentage of enrollees meeting VA drive time access guidelines, since primary care services will remain at the same location as in the baseline. New and expanded CBOCs should enhance primary care access.
Acute	↔	Despite the service line realignment, no material change is expected to the percentage of enrollees meeting VA drive time access guidelines for acute care.
Tertiary	↔	Despite the service line realignment, no material change is expected to the percentage of enrollees meeting VA drive time access guidelines for tertiary care.
Healthcare Quality		
Quality of medical services	↔	No material change to the quality of medical services is anticipated.
Modern, safe, and secure environment	↔	Renovations result in similar adherence to modern, safe, and secure standards as in the baseline.

Assessment of BPO 7	Comparison to Baseline	Description of Impact
Ensures forecast healthcare need is appropriately met	↔	Renovated facilities will provide sufficient capacity to meet current and projected demand in facilities designed to serve veterans' healthcare needs.
Impact on VA and Local Community		
Human Resources: FTEE need (based on volume)	Decrease	The BPO will result in a slight decrease in FTEEs as some duplicative positions (e.g. administrative, engineering, etc.) would no longer be required as specific subspecialties are consolidated into a single campus.
Recruitment / retention	↔	This BPO requires phased renovation at both sites and it is anticipated that the resulting modern facilities and equipment would enhance recruitment and retention.
Research	↔	The renovated facilities are not expected to alter research at Brooklyn or Manhattan.
Education and Academic Affiliations	↔	With the exception of small adjustments to teaching responsibilities between the sites, the current academic affiliations will remain as in the baseline.
Use of VA Resources		
Operating cost effectiveness	-	Although operating efficiencies may be gained through renovated facilities, the estimated savings are not expected to be significant. Therefore, the BPO has the potential to require materially the same operating costs as the baseline.
Level of capital expenditures estimated	↓↓	Significant investment required relative to the baseline BPO (121% to 199%).
Level of re-use proceeds	-	No material re-use proceeds are expected since no re-use property is available.
Cost avoidance opportunities	-	This BPO requires renovations, the costs of which are greater than the renovations required by the baseline. Therefore, there are no cost avoidance opportunities in terms of capital investment.
Overall cost effectiveness	-	This BPO has similar operating costs to the baseline and requires a significant amount of capital expenditures as compared to the baseline. Overall, this BPO results in a similar level of net present cost as compared to the baseline.
Ease of Implementation		
Riskiness of BPO implementation	↔	While stakeholder reaction to the change in mission for both campuses may present an additional risk, this BPO appears similar in risk to the baseline.
Ability to Support VA Programs		
DoD sharing	↔	This BPO is not expected to materially impact DoD sharing agreements.
One-VA Integration	↔	Incremental realignment neither promotes nor precludes the furthering of One-VA integration.

Assessment of BPO 7	Comparison to Baseline	Description of Impact
Special Considerations	↔	This BPO is not expected to materially impact the ability of VA NYHHS to support Homeland Security disaster preparedness.
Overall Attractiveness	-	Generally similar to the baseline.

Capital Planning Information

Figures 23 and 24 provide a summary of the proposed conceptual site plan for BPO 7.

Figure 23: BPO 7 Conceptual Site Plan for Brooklyn Campus

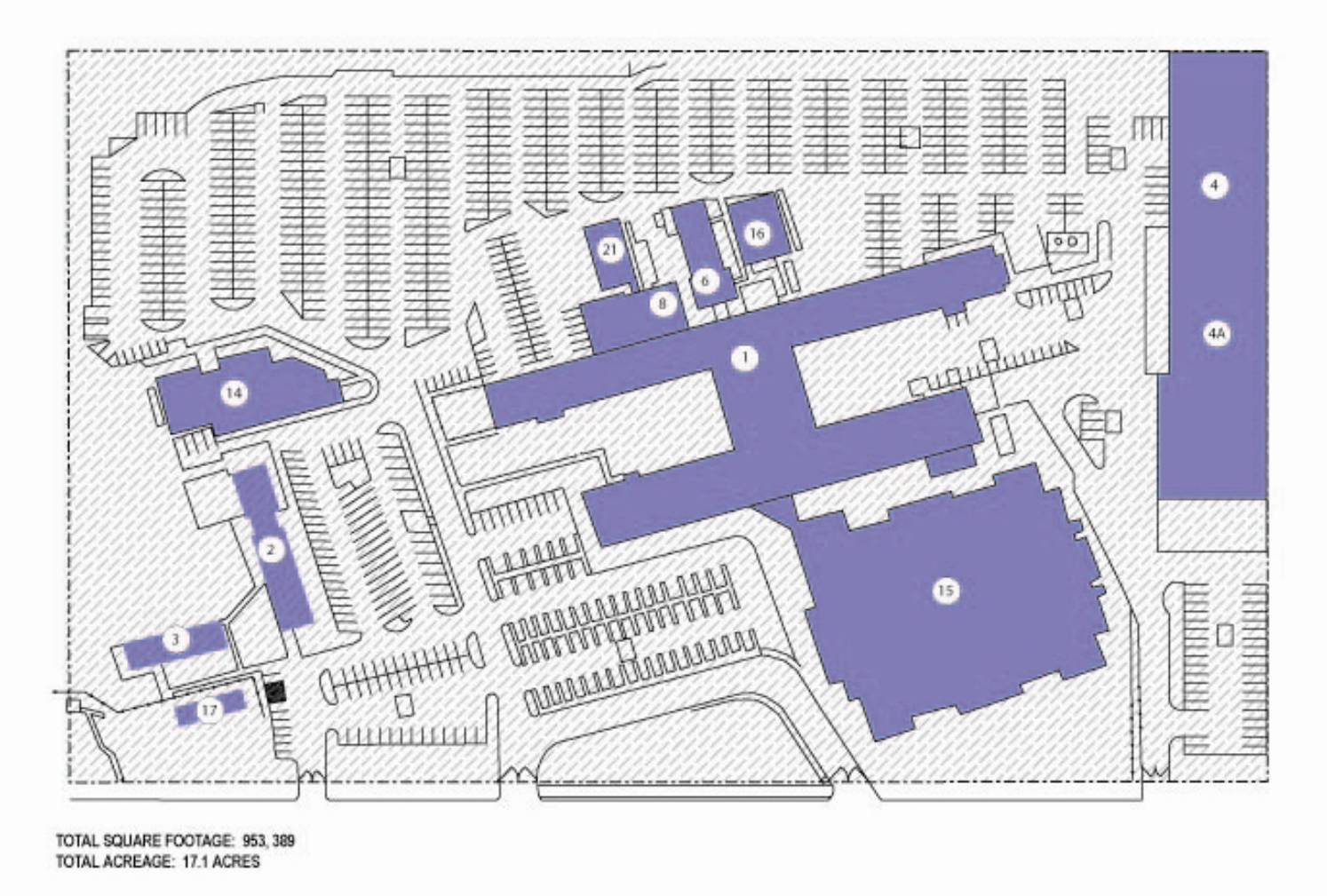
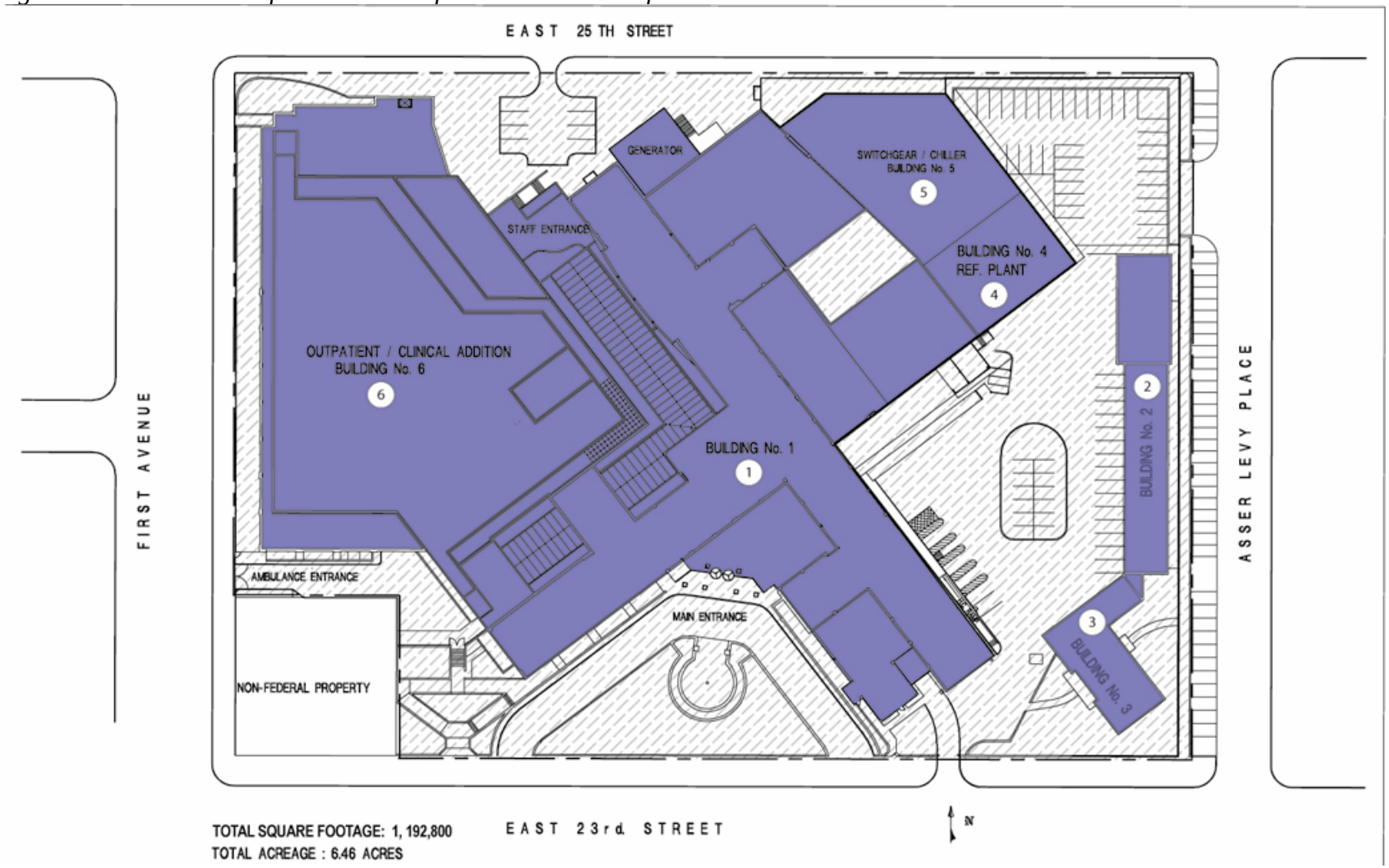


Figure 24: BPO 7 Conceptual Site Plan for Manhattan Campus

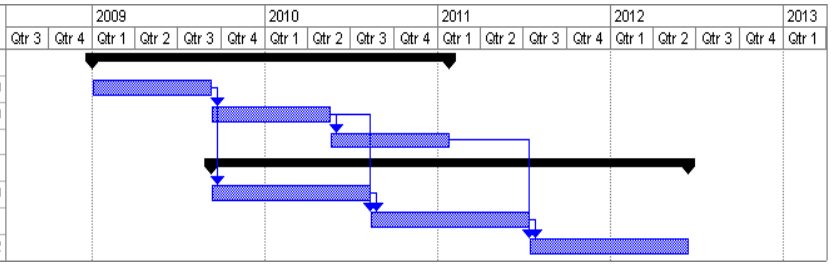


Schedule

Schedules for development in Stage I are intended to identify relative duration of new or renovated work in order to calculate occupancy dates for utilization of space and escalation costs. Figure 25 indicates the construction duration for this BPO.

Figure 25: BPO 7 Capital Planning Schedule

ID	Task Name	Start	Finish
1	**Design**	**Thu 1/1/09**	**Wed 1/26/11**
2	Design renovation phase 1	Thu 1/1/09	Wed 9/9/09
3	Design renovation phase 2	Thu 9/10/09	Wed 5/19/10
4	Design renovation phase 3	Thu 5/20/10	Wed 1/26/11
5	**Renovation**	**Thu 9/10/09**	**Wed 6/13/12**
6	Renovation phase 1	Thu 9/10/09	Wed 8/11/10
7	Renovation phase 2	Thu 8/12/10	Wed 7/13/11
8	Renovation phase 3	Thu 7/14/11	Wed 6/13/12



BPO 8: New Consolidated Campus in Queens

This BPO involves completely replacing all services at Manhattan and Brooklyn with a new campus. In this BPO, the campus is located in Queens. While the location has yet to be determined, preferably it would be as close to SUNY Downstate as the current Brooklyn location in terms of commute time. This BPO involves the construction of a new 1,456,156 square foot building to accommodate all services. In addition, this BPO requires vacating the Brooklyn and the Manhattan campuses completely. The Brooklyn and Manhattan campuses will be made available for re-use.

Assessment

Table 32 summarizes the assessment of BPO 8 according to the discriminating criteria.

Table 32: BPO 8 Assessment

Assessment of BPO 8	Comparison to Baseline	Description of Impact
Healthcare Access		
Primary	↔	Despite the consolidation of the Brooklyn and Manhattan campuses at Queens, no material change is expected to the percentage of enrollees meeting VA drive time access guidelines for primary care.
Acute	↔	Despite the consolidation of the Brooklyn and Manhattan campuses at Queens, no material change is expected to the percentage of enrollees meeting VA drive time access guidelines for acute care.
Tertiary	↔	Despite the consolidation of the Brooklyn and Manhattan campuses at Queens, no material change is expected to the percentage of enrollees meeting VA drive time access guidelines for tertiary care.
Healthcare Quality		
Quality of medical services	↔	No material change to the quality of medical services is anticipated.
Modern, safe, and secure environment	↑	The construction of a new facility would result in improved adherence to modern, safe, and secure standards.
Ensures forecast healthcare need is appropriately met	↔	The replacement hospital would provide sufficient capacity to meet current and projected demand in facilities designed to serve veterans' healthcare needs.
Impact on VA and Local Community		
Human Resources: FTEE need (based on volume)	Decrease	The BPO will result in a slight decrease in FTEEs as some duplicative positions (e.g., administrative, engineering, etc.) would no longer be required when services are consolidated into a single, new campus.

Assessment of BPO 8	Comparison to Baseline	Description of Impact
Recruitment / retention	↓	Recruitment of key clinical leadership for Centers of Excellence moving from Manhattan to Queens will be required. Brooklyn Specialty Services programs will be also be impacted. Some turnover is possible due to the change in campus location.
Research	↓	Likely negative impact to affiliations at both campuses but particularly the Manhattan-based / NYU-sponsored programs. The loss of research dollars associated with NYU (Manhattan) would be significant.
Education and Academic Affiliations	↓	It is likely that the consolidated Queens campus will result in the elimination of Manhattan-based / NYU-sponsored programs. This is due to logistical problems of moving the programs to Queens. SUNY programs at the Brooklyn campus will be impacted, although to a lesser degree than the Manhattan programs.
Use of VA Resources		
Operating cost effectiveness	↑↑	The BPO has the potential to provide significant recurring operating cost savings as compared to the baseline BPO (>10%). New construction and the consolidation of services will provide for greater staffing and other potential efficiencies.
Level of capital expenditures estimated	↓↓	Because this BPO requires the construction of a new facility, significant capital investment would be required compared to the baseline BPO (121% to 199%).
Level of re-use proceeds	↑↑↑	By completely vacating both campuses, this BPO results in a significantly higher level of re-use proceeds compared to the baseline BPO (e.g. 2 or more times).
Cost avoidance opportunities	-	This BPO requires new construction, the costs of which are greater than the renovations required by the baseline. Therefore, there are no cost avoidance opportunities in terms of capital investment.
Overall cost effectiveness	↑	This BPO has significant operating cost savings and significantly higher levels of re-use proceeds as compared to the baseline. This results in a lower net present cost relative to the baseline (90-95% of the baseline).

Assessment of BPO 8	Comparison to Baseline	Description of Impact
Ease of Implementation		
Riskiness of BPO implementation	↓	BPO 8 results in a greater level of risk compared to the baseline in term of the following major risk areas: • Political, since significant negative feedback is likely from veterans, affiliates, and elected officials. • Continuity of Care, since disruptions to patient care are likely during the move to the Queens campus • It is likely that the loss of the Manhattan affiliates would result in the loss of the Center of Excellence designation, unless VA is able to replace the affected physicians with physicians of equivalent or better expertise and stature • Reputation, since negative community reaction to the consolidation could tarnish the VA's image in New York
Ability to Support VA Programs		
DoD sharing	↓	The loss of the Brooklyn and Manhattan campuses may negatively impact DoD sharing agreements.
One-VA Integration	↔	A new consolidated campus neither promotes nor precludes the furthering of One-VA integration.
Special Considerations	↓	Eliminating the Brooklyn and Manhattan campuses will result in the loss of a Homeland Security readiness station. This will adversely impact disaster preparedness for the City of New York.
Overall Attractiveness	-	Despite the attractiveness related to increased cost effectiveness and the significant re-use proceeds, this BPO negatively impacts research and education affiliations, recruitment and retention, DoD sharing, and Homeland Security affiliations. Implementation risk will also likely be increased. Therefore, this BPO's overall attractiveness is generally similar to the baseline.

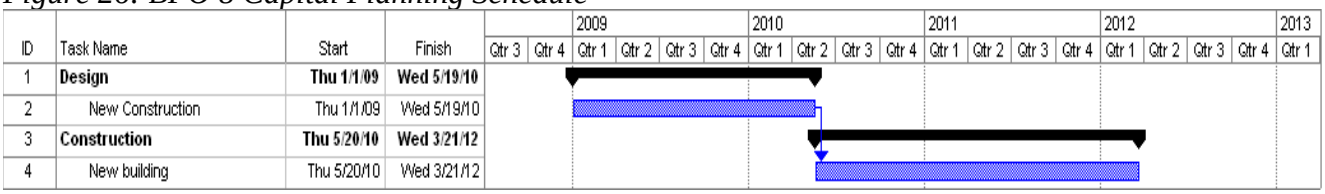
Capital Planning Information

As this is a new facility on a new campus, no conceptual site plans are submitted during Stage I

Schedule

Schedules for development in Stage I are intended to identify relative duration of new or renovated work in order to calculate occupancy dates for utilization of space and escalation costs. Figure 26 indicates the construction duration for this BPO.

Figure 26: BPO 8 Capital Planning Schedule



ID	Task Name	Start	Finish
1	**Design**	**Thu 1/1/09**	**Wed 5/19/10**
2	New Construction	Thu 1/1/09	Wed 5/19/10
3	**Construction**	**Thu 5/20/10**	**Wed 3/21/12**
4	New building	Thu 5/20/10	Wed 3/21/12

BPO 9: New Consolidated Campus in Brooklyn with Expansion of CBOCs

This BPO requires completely replacing all services at Manhattan and Brooklyn with a new campus. In addition, BPO 9 involves renovating and expanding the existing CBOC in Harlem and at Chapel Street in phases. This BPO also requires the construction of a CBOC in Queens and a CBOC in outer Brooklyn. BPO 9 also involves vacating the Brooklyn and Manhattan campuses completely and constructing a new 1,352,634 square foot building on a new site to accommodate all services. The Manhattan campus and the current Brooklyn campus will be made available for re-use.

Assessment

Table 33 summarizes the assessment of BPO 9 according to the discriminating criteria.

Table 33: BPO 9 Assessment

Assessment of BPO 9	Comparison to Baseline	Description of Impact
Healthcare Access		
Primary	↔	Despite the consolidation of the Brooklyn and Manhattan campuses at Brooklyn, no material change is expected to the percentage of enrollees meeting VA drive time access guidelines for primary care. CBOC expansion will sufficiently meet the primary care access guidelines.
Acute	↔	Despite the consolidation of the Brooklyn and Manhattan campuses at Brooklyn, no material change is expected to the percentage of enrollees meeting VA drive time access guidelines for acute care. The location of the consolidated Brooklyn campus will sufficiently meet the acute care access guidelines.
Tertiary	↔	Despite the consolidation of the Brooklyn and Manhattan campuses at Brooklyn, no material change is expected to the percentage of enrollees meeting VA drive time access guidelines. The location of the consolidated Brooklyn campus will sufficiently meet the tertiary care access guidelines.
Healthcare Quality		
Quality of medical services	↔	No material change to the quality of medical services is anticipated.
Modern, safe, and secure environment	↑	The construction of a new facility would result in improved adherence to modern, safe, and secure standards.
Ensures forecast healthcare need is appropriately met	↔	A replacement hospital would provide sufficient capacity to meet current and projected demand in facilities designed to serve veterans' healthcare needs.

Assessment of BPO 9	Comparison to Baseline	Description of Impact
Impact on VA and Local Community		
Human Resources: FTEE need (based on volume)	Decrease	The BPO will result in a decrease in FTEEs as some duplicative positions (e.g., administrative, engineering, etc.) would no longer be required when services are consolidated into a single, new campus.
Recruitment / retention	↓	Recruitment of key clinical leadership for Manhattan programs moving to Brooklyn will likely be required. Some turnover is likely due to staff from the Manhattan campus leaving.
Research	↓	The complete closure of the Manhattan facility is likely to impact the Manhattan-based / NYU-sponsored programs. The loss of research dollars associated with NYU would be significant.
Education and Academic Affiliations	↓	Likely impact to NYU-sponsored programs.
Use of VA Resources		
Operating cost effectiveness	↑↑	The BPO has the potential to provide significant recurring operating cost savings as compared to the baseline BPO (>10%). New construction and the consolidation of services will provide for greater staffing and other potential efficiencies.
Level of capital expenditures estimated	↓↓	Because this BPO requires the construction of a new facility, significant capital investment would be required relative to the baseline BPO (121% to 199%).
Level of re-use proceeds	↑↑↑	By completely vacating both campuses, this BPO results in a significantly higher level of re-use proceeds compared to the baseline BPO (e.g. 2 or more times).
Cost avoidance opportunities	-	This BPO requires new construction, the costs of which are greater than the renovations required by the baseline. Therefore, there are no cost avoidance opportunities in terms of capital investment.
Overall cost effectiveness	↑	This BPO has significant operating cost savings and significantly higher levels of re-use proceeds as compared to the baseline. This results in a lower net present cost relative to the baseline (90 to 95% of the baseline).

Assessment of BPO 9	Comparison to Baseline	Description of Impact
Ease of Implementation		
Riskiness of BPO implementation	↓	BPO 9 results in a greater level of risk compared to the baseline in terms of the following major risk categories: • Political, since significant negative feedback is likely from veterans, affiliates, and elected officials. • It is likely that the loss of the Manhattan affiliates would result in the loss of the Center of Excellence designation, unless VA is able to replace the affected physicians with physicians of equivalent or better expertise and stature • Reputation, since negative community reaction to the consolidation could tarnish VA's image in New York
Ability to Support VA Programs		
DoD sharing	↓	The consolidation of the Brooklyn and Manhattan campuses may negatively impact DoD sharing agreements.
One-VA Integration	↔	A new consolidated campus neither promotes nor precludes the furthering of One-VA integration.
Special Considerations	↓	The consolidation of the Brooklyn and Manhattan campuses will result in the loss of a Homeland Security readiness station. This will adversely impact disaster preparedness for the city of New York.
Overall Attractiveness	-	Despite the attractiveness related to increased cost effectiveness and the significant re-use proceeds, this BPO negatively impacts research and education affiliations, recruitment and retention, DoD sharing, and Homeland Security affiliations. Implementation risk will also likely be increased. Therefore, this BPO's overall attractiveness is generally similar to the baseline.

Capital Planning Information

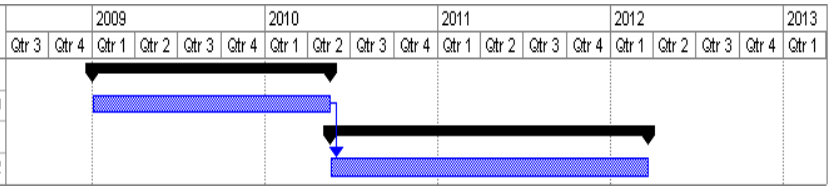
As this is a new facility on a new campus, no conceptual site plans are submitted during Stage I.

Schedule

Schedules for development in Stage I are intended to identify relative duration of new or renovated work in order to calculate occupancy dates for utilization of space and escalation costs. Figure 27 indicates the construction duration for this BPO.

Figure 27: BPO 9 Capital Planning Schedule

ID	Task Name	Start	Finish
1	**Design**	**Thu 1/1/09**	**Wed 5/19/10**
2	New Construction	Thu 1/1/09	Wed 5/19/10
3	**Construction**	**Thu 5/20/10**	**Wed 3/21/12**
4	New building	Thu 5/20/10	Wed 3/21/12



7.0 BPO Summary and Recommendations

Assessment Drivers

The Metro New York market contains approximately 169,376 enrolled veterans. Over the next 20 years, the number of enrolled veterans in Priority Groups 1-6 is expected to decrease by 21%, from 100,062 to 78,963 while the number of enrolled veterans in Priority Groups 7-8 is expected to decrease by 70%, from 69,314 to 20,583.

Overall, projected utilization presents several opportunities and challenges. Opportunities exist as there appears to be unmet market needs for inpatient services such as substance abuse and mental health. Specifically, with regard to inpatient care:

- The demand for inpatient services at the Brooklyn VAMC appears to vary by CIC. Medicine/observation and surgery decline from 2013 to 2023. Psychiatry and substance abuse demand increases through 2013, then declines to a level less than the current bed need. Mental health inpatient programs demand increases through 2013, then levels off through 2023.
- The demand for inpatient services at the Manhattan VAMC also appears to vary by CIC. Medicine/observation and surgery demand steadily declines over the projected period. Psychiatry and substance abuse demand increases through 2013, then declines, yet still remains higher than the current bed need.

With regard to outpatient, non-mental health services:

- At the Brooklyn VAMC, specialty area cardiology shows an increase in utilization through 2023; however, there is a decrease in demand for eye clinic, non-surgical specialties, orthopedics, radiology, and surgical specialties. Rehab medicine utilization remains level throughout the study period.
- At the Manhattan VAMC, specialty area cardiology also shows an increase in utilization through 2023. Like the Brooklyn VAMC, there is a decrease in demand for eye clinic, non-surgical specialties, orthopedics, radiology, and surgical specialties. Rehab medicine also remains level throughout the study period.

As for outpatient, mental health services:

- Expected demand for outpatient mental health services at the Brooklyn VAMC shows an overall downward trend for behavioral health, methadone treatment, and work therapy. Demand for day treatment is flat.
- Expected demand for outpatient mental health services at the Manhattan VAMC shows an overall upward trend in 2013 followed by a decline in 2023. However, 2023 demand remains above 2003 values.

Overall, the long term utilization trends for the Brooklyn and Manhattan VAMCs are very similar. Inpatient utilization varies by CIC with key categories such as medicine/observation and

surgery expected to decline. While outpatient cardiology services increase, overall outpatient services decline over the period. The only difference in utilization appears to be in outpatient mental health where the demand declines for the Brooklyn VAMC but increases for the Manhattan VAMC.

These long-term healthcare trends for the Metro New York market, together with five major drivers were considered for the Brooklyn-Manhattan study site. These drivers represent factors particularly noticeable at the Brooklyn and Manhattan VAMCs that must be balanced in the development and recommendation of business plan options. The Brooklyn-Manhattan assessment drivers are as follows:

Five major drivers were considered for the Brooklyn-Manhattan study site. These drivers represent factors particularly noticeable at the Brooklyn-Manhattan study site that must be balanced in the development and evaluation of BPOs. They are:

1. Closure of a campus and/or service realignment at either campus may disrupt or terminate academic affiliations with each campus. In turn, the quality of medical services for programs reliant on academic affiliations would likely be impacted. Such changes would likely result in large implementation risks related to organizational and change management, local acceptance, and veteran access to care.
2. Drive time analyses show that the Metro New York Market area meets drive time guidelines, but the drive time analyses do not account for heavy veteran reliance upon public transportation.
3. Consolidating both campuses may produce operating cost savings and potential re-use proceeds, but there are also significant capital costs required to achieve consolidation.
4. Based upon the analysis of current and future vacant space, the opportunity to right-size both the Brooklyn and Manhattan campuses exists.
5. Several factors limit re-use to three scenarios for the Brooklyn-Manhattan study site: 1) the entire Brooklyn campus is made available, 2) the entire Manhattan campus is made available, and 3) the Brooklyn and Manhattan campuses are both made available.

These five drivers are described further below.

Affiliation with Academic Medical Centers – Both campuses have extensive and exclusive affiliations with local academic medical centers. A BPO that results in the closure of one or both facilities will significantly disrupt, if not terminate, such existing relationships. The Brooklyn campus is affiliated with the State University of New York-Downstate (SUNY). The Brooklyn campus maintains a fully integrated residency program with SUNY in general medicine and specialty medicine services including cardiology, endocrinology, gastroenterology, hematology/oncology, pulmonary medicine, nephrology, infectious disease, and rheumatology. The primary clinical affiliation for the Manhattan facility is with the New York University (NYU) School of Medicine. Because of the significant travel time for faculty between both facilities, a BPO that results in the complete closure of a facility would most likely also result in the termination of that facility's academic affiliation. While there is some minor overlap of services between each facility's integrated residency programs (e.g., dental services), the risk exists that VA NYHHS would be left without residency programs in key healthcare service areas

including orthopedics, urology, cardiology, dermatology, and rehabilitation medicine. Additionally, the Manhattan facility supports four Centers of Excellence and has been at the forefront of clinical care and research for patients with HIV/AIDS since the beginning of the epidemic. It is the only VHA facility to house both a designated clinical care unit and Research Center for AIDS and HIV Infection (RCAHI).

If the clinicians that are at least equally skilled cannot replace the current clinicians provided through these academic affiliations, the quality of medical services is likely to decrease. Additionally, if services are moved, there would be significant implementation risk related to organizational and change management, local acceptance, and veteran access to care. Moving services from one campus to another would require extensive organizational and change management activities in order to transition effectively between sites. Also, patients, academic affiliates, and local, state, and federal government officials would have extremely negative reaction to any option that completely abandons either the Brooklyn or the Manhattan campus.

Access – Drive time guidelines at the market level have a criteria threshold of 70% for primary care and 65% for acute and tertiary care. Currently, the Metro New York market area meets the access guideline for all areas of care (99.6% for primary care, 99.8% for acute care and 100% for tertiary care). Although drive time guidelines are met for the Metro New York market, drive time analyses do not take into account that many veterans in metropolitan New York rely on public transportation. Veterans who utilize the Brooklyn campus are generally more likely to travel to the campus by automobile, while veterans that utilize the Manhattan campus are generally more likely to travel to the campus by public transportation. Using public transportation to move between Manhattan and Brooklyn significantly increases travel time and any option that results in complete closure of one facility or the other may affect veteran access to healthcare services. VA recognizes that in New York City, the application of guidelines for drive time is less meaningful due to congestion and the need to measure commute time.

Capital Costs of Consolidation – If a BPO results in either campus being completely vacated, phased renovation of the surviving building and new construction would be required to accommodate the total volume of services being located in one consolidated facility. If the Brooklyn campus becomes the consolidated site, the construction of a new building of 186,000 square feet and the demolition of Buildings 2 and 3 to allow space for the new building would be required. In addition, there are 222,000 square feet of surface parking that will need to be replaced with a six-story 550,000 square foot structured parking facility. If the Manhattan campus becomes the consolidated site, new construction and renovations would be required to accommodate the total volume of services being located at Manhattan. This includes a new building of 345,000 square feet, to accommodate the required demand, and the demolition of Buildings 2 and 3 to allow space for the new building.

If vacating either campus, efficiencies in operating cost would be gained and significant re-use proceeds potential of the vacant campus would be realized. Regardless of the configuration of buildings and the configuration site, consolidation to one campus would require significant capital expenditures for new construction, renovation, and demolition.

Right-Sizing of Campus – Both the Brooklyn and Manhattan facilities were built to support a larger number of veterans than they currently serve. The Brooklyn facility is authorized for 369 beds, but currently operates 147 beds. The Manhattan facility is authorized for 399 beds, but currently operates 171 beds. Inpatient utilization demand data suggests that the Brooklyn facility will experience an 11% decline in bed need through 2023 and that the Manhattan facility will experience a 24% decline in bed need. The projected decline in demand for inpatient services over the next 20 years will increase the surplus capacity at both facilities and consequently lower the operating efficiency of each facility. Each option will right-size facilities to accommodate projected demand by consolidating services into modern, safe, and secure facilities.

Re-Use Potential – Zoning restrictions and real estate trends suggest the primary re-use potential for each campus is for residential development (condominiums or apartments). Zoning restrictions and the existing layout of the sites do not permit separation of the campus into parcels to accommodate a new residential structure.

Although several of the BPOs recapture a significant amount of space located within the existing buildings of the site for potential re-use, the marketability of such vacant space to permitted users at market rates is limited as well. Potential tenants for the space would predominantly include institutional or tenants affiliated with the existing operations at the center. Market conditions dictate that such users would most likely provide a below-market-rate return to VA. In the case of both Brooklyn and Manhattan, the footprint necessary for a residential development with sufficient unit density to render the project financially feasible to the private development community cannot be accommodated at either site. Since both campuses have a lack of available space for new construction, limiting zoning implications, and the limited marketability of vacant space to permitted users at market rates, a fractionalization strategy for potential re-use is not practical. Therefore, the re-use potential for either campus may only be realized if either campus is completely vacated.

Assessment Results

Tables 34 and 35 detail the results of applying discriminating criteria and comparison against the baseline in accordance with the Evaluation System for BPOs (Table 21).

Table 34: Baseline Assessment

Assessment of Baseline	Description
Healthcare Access	
Primary	99.6% of enrollees are within the drive time guideline. The primary care access threshold is 70%. Therefore, the Brooklyn-Manhattan study site meets the drive time access guideline for primary care.
Acute	99.8% of enrollees are within the drive time guidelines. The acute care access threshold is 70%. Therefore, the Brooklyn-Manhattan study site meets the drive time access guideline for acute care.
Tertiary	100% of enrollees are within the drive time guideline. The tertiary care threshold is 65%. Therefore, the Brooklyn-Manhattan study site meets the drive time access guideline for tertiary care.

Assessment of Baseline	Description
Healthcare Quality	
Quality of medical services	NYHHS achieved the following for select quality scores as compared to overall VA national scores: • Better or comparable scores for inpatient care and ambulatory care. • Worse scores for behavioral health, mental health, and patient satisfaction NYHHS achieved the following for select quality scores as compared to overall VISN 3 scores: • Better or comparable scores for inpatient care and endocrinology (ambulatory care) • Worse scores for colorectal cancer care (ambulatory care), behavioral health, mental health, and patient satisfaction
Modern, safe, and secure environment	Brooklyn-Manhattan facilities have ratings in the range of 2 to 5 out of 5 for critical values such as accessibility, code, functional space, and facility conditions. The baseline assumes all facilities will receive the necessary investment to rectify any material deficiencies in order to provide a modern, safe, and secure healthcare delivery environment.
Ensures forecast healthcare need is appropriately met	The baseline assumes the percentage of in-house and contracted care is maintained. Additionally, baseline assumes that in order to maintain quality of care and meet VA thresholds for clinical volume, VA will make necessary operational adjustments (e.g., staffing or contract arrangements).
Impact on VA and Local Community	
Human Resources: FTEE need (based on volume)	With a decrease in workload, it is anticipated that the baseline results in a corresponding decrease in the number of FTEEs.
Recruitment / retention	The Brooklyn and Manhattan campuses are in an urban area and do not have unusual difficulty recruiting most hospital staff. However, recruitment for RN, LPN, and CRNA positions has been especially difficult – this is characteristic of the competitive market for these clinicians. The current recruitment environment is expected to be maintained in the baseline. Retention is generally not an issue due to competitive wages, benefits, and job security.
Research	The Brooklyn and Manhattan campuses receive $15.7 million annually in total research funding. $5.7 million is in intramural funding and $10 million is through the affiliated schools and non-profit research corporations. For FY05, Brooklyn has 54 active protocols. Manhattan has 156. Of the 210 total, 81% are human studies, with the remainder being animal studies. 639 Veterans are currently enrolled in studies.

Assessment of Baseline	Description
Education and Academic Affiliations	The primary affiliations at the Brooklyn and New York campuses are NYU and SUNY. Affiliate relationships support Centers of Excellence, including cardiac surgery, dialysis, rehab medicine and HIV/AIDS. Manhattan also has the largest AIDS program in the VA system. For FY05, 285 residents, 280 medical students and 45 allied health students are trained at the Brooklyn and Manhattan campuses. These affiliations and programs are assumed to be maintained in the baseline.
Use of VA Resources	
Operating cost effectiveness	Brooklyn-Manhattan operating costs include those costs associated with providing care onsite at the Brooklyn and Manhattan campuses, as well as purchasing care contracted from other providers.
Level of capital expenditures estimated	Level of capital expenditures estimated includes the costs identified by the facility and captured in the CAI database reflecting essential maintenance and capital required to achieve a modern, safe, and secure environment.
Level of re-use proceeds	There is no re-use in the baseline.
Cost avoidance	In the baseline, it is assumed that the amount of money identified by the facility in the CAI database as essential maintenance would be fully expended.
Overall cost effectiveness	Not applicable for the baseline.
Ease of Implementation Riskiness of BPO Implementation	The baseline presents implementation risk in terms of the following major risk categories: • Continuity of care, since care may be disrupted for patients during extensive facility renovations • Project realization, due to the risk of renovation timelines not being met
Ability to Support VA Programs	
DoD sharing	VA NYHHS has 22 active agreements with DoD. The baseline BPO will not adversely impact any of the agreements.
One-VA Integration	VA NYHHS provides office space to VBA. The baseline has the potential to provide the same level of current One-VA integration.
Special Considerations	VA NYHHS plays an important role in Homeland Security efforts. VA NYHHS supports disaster preparedness by maintaining surgical wards (24-hour readiness) and stockpiling medicine for major infectious disease outbreaks, mass casualties, etc.

Table 35 provides an overall summary of the BPOs assessed for comparative purposes.

Table 35: BPO Assessment Summary[38]

Assessment Summary	BPO 2	BPO 3	BPO 4	BPO 5
	Consolidate at Brooklyn campus and Expand Harlem and SoHo CBOCs	Consolidate at Manhattan Campus, Develop New Queens and Borough Hall CBOCs	Consolidate Inpatient only at Manhattan Campus, Retain Brooklyn Ambulatory Services at Poly Place, Develop New Queens and Borough Hall CBOCs	Convert Manhattan Campus to Medical/Surgical, Convert Brooklyn Campus to Psychiatry/Behavioral Health
Healthcare Access				
Primary care	↔	↔	↔	↔
Acute care	↔	↔	↔	↔
Tertiary care	↔	↔	↔	↔
Healthcare Quality				
Quality of medical services	↔	↔	↔	↔
Modern, safe, and secure environment	↑	↑	↔	↑
Ensures forecast healthcare need is appropriately met	↔	↔	↔	↔
Impact on Local Community				
Human Resources:				
FTEE need (based on volume)	Decrease	Decrease	Decrease	Decrease
Recruitment / retention	↓	↓	↓	↔
Research	↓	↔	↔	↔
Education and Academic Affiliations	↓	↓	↓	↔

[38] BPO 10 is not included in the Assessment Summary Table. It was created during the second LAP meeting at the suggestion of the LAP and, therefore, only the initial screening criteria of access, quality, and cost were applied to determine if the BPO has the potential to meet or exceed the CARES objectives. If BPO 10 is selected for Stage II, a more detailed analysis will be completed.

Assessment Summary	BPO 2	BPO 3	BPO 4	BPO 5
	Consolidate at Brooklyn campus and Expand Harlem and SoHo CBOCs	Consolidate at Manhattan Campus, Develop New Queens and Borough Hall CBOCs	Consolidate Inpatient only at Manhattan Campus, Retain Brooklyn Ambulatory Services at Poly Place, Develop New Queens and Borough Hall CBOCs	Convert Manhattan Campus to Medical/Surgical, Convert Brooklyn Campus to Psychiatry/Behavioral Health
Use of VA Resources				
Operating cost effectiveness	↑	↑	-	-
Level of capital expenditures estimated	-	↓↓	↓↓	-
Level of re-use proceeds	↑↑↑	↑↑↑	-	-
Cost avoidance opportunities	-	-	-	-
Overall cost effectiveness	↑↑	↑	-	-
Ease of Implementation				
Riskiness of BPO implementation	↓	↓	↓	↓
Ability to Support VA Programs				
DoD sharing	↓	↓	↔	↔
One-VA Integration	↔	↔	↔	↔
Special Considerations	↓	↓	↔	↔
Overall Attractiveness	-	-	↓↓	↓↓

Assessment Summary	BPO 6	BPO 7	BPO 8	BPO 9
	Service Line Consolidation: Cardiology / Orthopedics / Women's Health to Manhattan; Oncology to Brooklyn	Incremental Realignment with New and Expansion of Existing CBOCs	New Consolidated Campus in Queens	New Consolidated Campus in Brooklyn with Expansion of CBOCs
Healthcare Access				
Primary care	↔	↔	↔	↔
Acute care	↔	↔	↔	↔
Tertiary care	↔	↔	↔	↔
Healthcare Quality				
Quality of medical services	↔	↔	↔	↔
Modern, safe, and secure environment	↔	↔	↑	↑
Ensures forecast healthcare need is appropriately met	↔	↔	↔	↔
Impact on Local Community				
Human Resources:				
FTEE need (based on volume)	Decrease	Decrease	Decrease	Decrease
Recruitment / retention	↔	↔	↓	↓
Research	↔	↔	↓	↓
Education and Academic Affiliations	↔	↔	↓	↓
Use of VA Resources				
Operating cost effectiveness	↑	-	↑↑	↑↑
Level of capital expenditures estimated	-	↓↓	↓↓	↓↓
Level of re-use proceeds	-	-	↑↑↑	↑↑↑

Assessment Summary	BPO 6	BPO 7	BPO 8	BPO 9
	Service Line Consolidation: Cardiology / Orthopedics / Women's Health to Manhattan; Oncology to Brooklyn	Incremental Realignment with New and Expansion of Existing CBOCs	New Consolidated Campus in Queens	New Consolidated Campus in Brooklyn with Expansion of CBOCs
Cost avoidance opportunities	-	-	-	-
Overall cost effectiveness	-	-	↑	↑
Ease of Implementation				
Riskiness of BPO implementation	↔	↔	↓	↓
Ability to Support VA Programs				
DoD sharing	↔	↔	↓	↓
One-VA Integration	↔	↔	↔	↔
Special Considerations	↔	↔	↓	↓
Overall Attractiveness	-	-	-	-

BPO 10: Build Replacement Facilities on Existing Sites with CBOC Expansions

The initial screening criteria of access, quality, and cost were applied to this new BPO to determine if this BPO, created by the LAP, has the potential to meet or exceed the CARES objectives.

Table 36: Screening Results for BPO 10

Criteria	Screening Result
Access	No material change is expected to the percentage of enrollees meeting VA drive time guidelines, since services will remain at the same location as in the baseline.
Quality	New construction would improve adherence to modern, safe, and secure requirements. Construction would result in sufficient capacity to meet current and projected demand. Significant disruption to continuity of care would be likely due to the need for short-term contracting during the construction period.
Cost	This BPO fails due to the significant up-front capital investments required for two newly constructed replacement campuses in Brooklyn and Manhattan. Any operating efficiencies gained by new buildings would not offset the initial capital investment and the inefficiencies caused by maintaining two full-service campuses.

As stated above in Table 36, this BPO results in very significant initial capital investment, and, therefore, fails initial screening for cost.

Local Advisory Panel and Stakeholder Reactions/Concerns

Local Advisory Panel Feedback

The Brooklyn-Manhattan LAP consists of eight members: Van Dunn, M.D. (Chair); Michael Simberkoff, M.D.; Eugene Feigelson, M.D.; George Basher; Clarice Joynes; Robert Glickman, M.D.; Gerard Kelly, and Kenneth Mizrach. Two of the members are VA staff, the rest are representatives of the community, veteran service organizations, and where appropriate, medical affiliates and Department of Defense.

At the second LAP meeting on September 19, 2005, following the presentation of public comments, the LAP conducted its deliberation on the BPOs. At that time, the LAP proposed one alternative BPO which calls for the construction of a new facility at both the Brooklyn and Manhattan campuses, and follows the approach of BPO 7 regarding CBOC expansion. Table 37 presents the results of LAP deliberations. BPOs 6 and 7 were recommended by the LAP for further study, while BPOs 2, 3, 4, 5, 8, 9, and 10 were not. The LAP shared the sentiment of the stakeholders that they favor renovation or replacement of the Brooklyn and Manhattan facilities on the current existing campuses, and strongly oppose campus consolidation. The LAP discouraged all BPOs that potentially increase veteran access/travel time, hinder or eliminate existing academic affiliations, and discontinue current service offerings at each site.

Table 37: LAP BPO Voting Results

BPO	Label	Yes	No	Abstain
1	Baseline	Not Voted	Not Voted	Not Voted
2	Consolidate at Brooklyn campus and Expand Harlem and SoHo CBOCs	0	8	0
3	Consolidate at Manhattan Campus, Develop New Queens and Borough Hall CBOCs	0	8	0
4	Consolidate Inpatient Only at Manhattan Campus, Retain Brooklyn Ambulatory Services at Poly Place, Develop New Queens and Borough Hall CBOCs.	0	8	0
5	Convert Manhattan Campus to Medical/Surgical, Convert Brooklyn Campus to Psychiatry/Behavioral Health	0	8	0
6	Service Line Consolidation: Cardiology/Orthopedics/Women's Health at Manhattan; Oncology to Brooklyn	7	1	0
7	Incremental Realignment with CBOC Expansions	8	0	0
8	New Consolidated Campus in Queens	0	8	0
9	New Consolidated Campus in Brooklyn with Expansion of CBOCs	0	8	0
10[39]	Build Replacement Facilities at Existing Sites with CBOC Expansions	2	4	2

Stakeholder Feedback on BPOs

In addition to raising specific concerns, stakeholders were provided with the opportunity to provide feedback regarding the specific BPOs presented at the second LAP meeting. Through the VA CARES website and comment forms distributed at the public meeting, stakeholders were able to indicate if they "favor", are "neutral", or are "not in favor" of each of the BPOs. The results of this written and electronic feedback are provided in Figure 28.

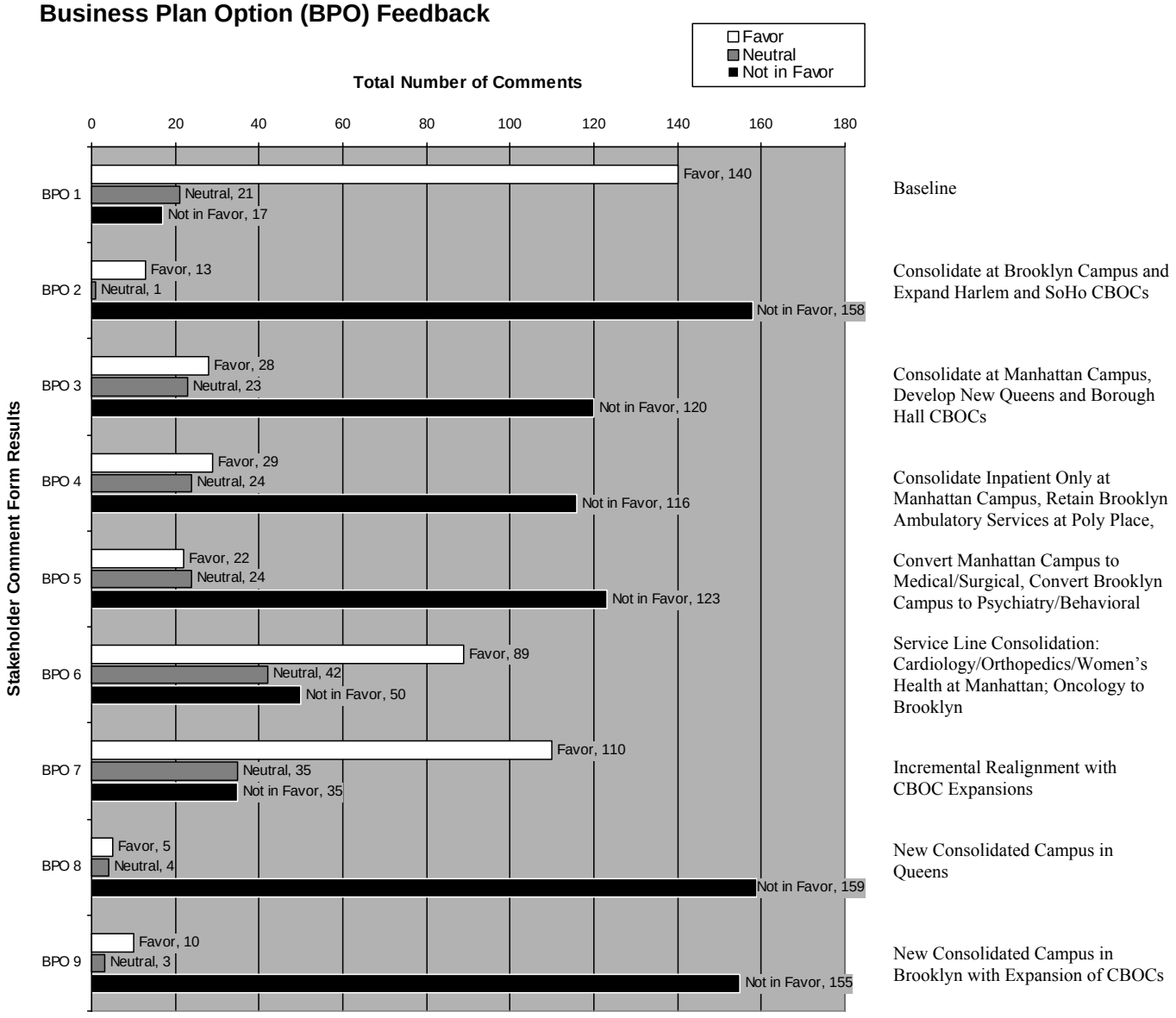
Stakeholders were overwhelmingly supportive of BPOs that preserve services on the current Brooklyn and Manhattan sites (e.g., BPOs 1, 6, and 7). Stakeholders of the Manhattan VAMC initiated a substantial postcard campaign in which thousands of postcards reading "Dear Secretary Nicholson, Protect our Veterans' health! Don't close the Manhattan Campus of the VA New York Harbor Healthcare System" were sent to the national VA headquarters. Many letters were also received from affiliates and employees of the New York University School of Medicine emphasizing the mutually beneficial relationship that the school shares with the Manhattan VAMC.

[39] New BPO added by the LAP.

Figure 28: Stakeholder Feedback on BPOs[40]

Analysis of Written and Electronic Inputs (Written and Electronic Only):

The feedback received from the Options Comment Forms for the Brooklyn/Manhattan study site is as follows:



[40] Stakeholder feedback is reflected in this chart only for the BPOs which were presented by Team PwC at the LAP meeting (BPOs 1-9), and not the one created by the LAP at the second public LAP meeting. Any stakeholder feedback regarding additional options was captured in the open text boxes on the comment forms.

BPO Recommendations for Assessment in Stage II

Team PwC's recommendation of BPOs to be further assessed in Stage II was determined based on several factors. Team PwC considered the pros and cons of each BPO, together with the results of assessments against discriminating criteria to determine the overall attractiveness of each BPO. Views and opinions of the LAP and oral and written testimony received from veterans and other interested groups were also considered. All of these inputs contributed to the selection of the BPOs to be recommended for further study in Stage II, which are summarized in Table 38 with pros and cons identified for each BPO.

BPOs 6 and 7 would provide an attractive solution to upgrading both campuses to modern, safe, and secure standards, while right-sizing the campuses for future demand. Additionally, these BPOs retain at least some services at both the Brooklyn and Manhattan campuses, which results in lower implementation risk related to veteran access to care than BPOs that vacate one or both campuses. These recommended BPOs would also better preserve both campuses' academic affiliations and the quality of care that is associated with those affiliations, and lower implementation risk related to local acceptance. BPO 9 puts forth an option that addresses the Secretary's Decision to study "the feasibility, cost-effectiveness, and impact of consolidating the Brooklyn and Manhattan campuses".

The BPOs which Team PwC eliminated from further consideration were BPOs 2, 3, 4, 5, 8, and 10. While BPOs 2 and 8 are more cost effective than the baseline, each of these BPOs reduces academic affiliations and results in higher implementation risk related to organizational and change management, local acceptance, and veteran access to care. BPO 3 has similar advantages and disadvantages as BPO 2, but while BPO 3 is less cost effective, it retains more research programs since affiliations with NYU are preserved. BPO 4 consolidates inpatient services at Manhattan while maintaining outpatient services at Brooklyn, resulting in operating inefficiencies and a large amount of vacant space at both campuses. In BPO 5, segregating medical/surgical and psychiatry/behavioral health between two different campuses runs counter to contemporary care models and would reduce quality of care. BPO 10 provides similar advantages and disadvantages as BPO 6, but BPO 10 is likely to be less cost effective due to greater estimated capital expenditure, to have a higher implementation risk related to continuity of care, and to have a more negative effect on affiliations and research programs. Therefore, BPO 10 is inferior to BPO 6.

Table 38: BPO Recommendations

BPO	Pros	Cons	Rationale
BPOs Recommended by Team PwC for Further Study			
BPO 1: Baseline	• Maintains current drive time access which meets VA thresholds • Renovations of facilities improve adherence to modern, safe, and secure standards • Sustains current medical education programs and affiliations with over 100 institutions • Sustains research programs including Centers of Excellence for Cardiac Surgery, Dialysis, Rehab Medicine, and HIV/AIDs, which is the only RCAHI within VHA • Maintains the 22 active agreements between VA NYHHS and DoD as well as current space provided to VBA	• Implementation risk related to continuity of care and project realization due to complex phasing of renovation • Operating inefficiencies of maintaining two campuses without any service line consolidations.	• Is the BPO against which all other BPOs are to be assessed
BPO 6: Service Line Consolidation: Cardiology/Orthopedics/ Women's Health at Manhattan; Oncology to Brooklyn	• Operating efficiencies are gained through service line consolidation • Operating cost savings are realized through renovations and service line consolidation	• May increase implementation risk related to veteran access to care via public transportation while maintaining overall drive time access to care • Potential implementation risk related to continuity of care • Affiliations and research programs may be negatively affected	• Overall, lower net present cost than the baseline due to operating cost efficiencies gained • Lower implementation risk than BPOs 2, 3, 4, and 8 related to continuity of care, reputation, and local acceptance by retaining both campuses • Avoids increased difficulty of recruitment associated with consolidation of services at one campus • Lessens impact on affiliations and research programs as well as public transportation access compared to BPOs 2, 3, 8, or 9, which relocate more services than this BPO

BPO	Pros	Cons	Rationale
BPO 7: Incremental Realignment with New and Expansion of Existing CBOCs	• Gains more operating efficiencies through renovations along specialty service lines than through renovations in the baseline • As the approach is incremental, it is by nature the most flexible and adaptable BPO • This BPO improves on BPO 6 by increasing and enhancing NYHHS' CBOC presence through new CBOCs in Queens and outer Brooklyn, and expanded services at existing CBOCs in Harlem and the Chapel Street locations.	• Significantly greater estimated capital expenditure for renovations to realign specialty services compared to renovations along current service lines at both campuses in the baseline • Potential implementation risk related to continuity of care • Depending on the condition(s) of the veteran, the potential exists that travel to two different campuses to receive care may be required	• Provides similar advantages and disadvantages compared to BPO 6, but as the approach in BPO 7 is incremental, it is by nature the most flexible and adaptable BPO • This BPO improves on BPO 6 by increasing and enhancing NYHHS' CBOC presence through new CBOCs in Queens and outer Brooklyn, and expanded services at existing CBOCs in Harlem and the Chapel Street locations • This BPO extends and enhances NYHHS' initiatives to collaboratively realign services between the Brooklyn and Manhattan campuses to promote patient access and operational efficiency without upsetting the delicate balance of teaching and research interests required to sustain the academic affiliations unique to each facility
BPO 9: New Consolidated Campus in Brooklyn with Expansion of CBOCs	• Overall, lower net present cost than the baseline due to significantly higher re-use potential and gains in operating cost efficiencies • Improves adherence to modern, safe, and secure standards through all new construction compared to only renovations in the baseline • Vacating the current Manhattan and Brooklyn campuses provides significant re-use potential that will help offset initial capital investment required for a new campus.	• May increase implementation risk related to veteran access to care via public transportation while maintaining overall drive time access to care • Potential to negatively impact affiliations, research programs, Centers of Excellence designation, and ability to recruit key clinical personnel • Higher risk of implementation than the baseline related to continuity of care, reputation, and local acceptance	• Overall, lower net present cost than the baseline due to significantly higher re-use potential and gains in operating cost efficiency • Improves adherence to modern, safe, and secure standards through all new construction compared to only renovations in the baseline • Vacating the current Manhattan and Brooklyn campuses provides significant re-use potential that will help offset initial capital investment required for a new campus. • Recommending BPO 9 for further study will put forth an option that addresses the Secretary's Decision to study "the feasibility, cost-effectiveness, and impact of consolidating the Brooklyn and Manhattan campuses."

BPO	Pros	Cons	Rationale
BPOs Not Recommended by Team PwC for Further Study			
BPO 2: Consolidate at Brooklyn Campus and Expand Harlem and SoHo CBOCs	• Improves adherence to modern, safe, and secure standards due to new construction compared to only renovations in the baseline • Gains more operating cost efficiencies due to new construction compared to only renovations in the baseline • Significantly higher re-use proceeds potential compared to the baseline since the entire Manhattan campus is made available for re-use • Overall, significantly lower net present cost than the baseline due to significantly higher re-use potential and more gains in operating cost efficiency	• May increase implementation risk related to veteran access to care via public transportation while maintaining overall drive time access to care • Potential to negatively impact affiliations, Centers of Excellence designation, and research programs as well as ability to recruit key clinical personnel • Higher risk of implementation than the baseline related to continuity of care, reputation, and local acceptance	• May negatively impact public transportation access to care while maintaining overall drive time access to care • Potential to negatively impact Manhattan Centers of Excellence, affiliations, and research programs as well as ability to recruit key clinical personal • Higher risk of implementation than the baseline related to quality, reputation, and local acceptance
BPO 3: Consolidate at Manhattan Campus; Develop New Queens and Borough Hall CBOCs	• Improves adherence to modern, safe, and secure standards due to some new construction compared to only renovations in the baseline • Significantly higher re-use proceeds potential compared to the baseline since the entire Brooklyn campus is made available for re-use • Gains more operating cost efficiencies due to new construction compared to only renovations in the baseline • Overall, significantly lower net present cost than the baseline due to significantly higher re-use potential and more gains in operating cost efficiency	• Significantly greater estimated capital expenditure for new construction and renovation at Manhattan compared to renovation only at both campuses • May increase implementation risk related to veteran access to care via public transportation while maintaining overall drive time access to care • Potential to negatively impact Brooklyn affiliations, research programs, and ability to recruit key clinical personnel may be negatively affected • Higher risk of implementation than the baseline related to quality, continuity of care, reputation, and local acceptance	• May increase implementation risk related to veteran access to care via public transportation while maintaining overall drive time access to care. • Potential to negatively impact Brooklyn affiliations, research programs, and ability to recruit key clinical personal • Higher risk of implementation than the baseline related to quality, continuity of care, reputation, and local acceptance

BPO	Pros	Cons	Rationale
BPO 4: Consolidate Inpatient only at Manhattan Campus, Retain Brooklyn Ambulatory Services at Poly Place, and Develop New Queens and Borough Hall CBOCs	• New Queens and Borough Hall CBOCs expands primary care coverage for Veterans • Some operating efficiencies are likely through inpatient services being consolidated	• Significantly greater estimated capital expenditure for new construction and renovation at Manhattan compared to renovation only at both campuses • May increase implementation risk related to veteran access to care via public transportation while maintaining overall drive time access to care • In this BPO it would be common for a veteran to have to routinely access both campuses for their care. For example, Manhattan veterans with mental health needs who also have established relationships with medical or surgical specialists at Manhattan." • Potential to negatively impact Brooklyn affiliations, research programs, and ability to recruit key clinical personal • Higher risk of implementation than the baseline related to continuity of care, reputation, and local acceptance • Despite the very large amount of vacated space at the Brooklyn campus, maintaining ambulatory services at Brooklyn would not allow for any re-use. This is due to the highly integrated Brooklyn campus, buffer requirements, and zoning regulations.	• May increase implementation risk related to veteran access to care via public transportation while maintaining overall drive time access to care • Potential to negatively impact Brooklyn affiliations, research programs, and ability to recruit key clinical personal • Higher risk of implementation than the baseline related to quality, continuity of care, reputation, and local acceptance • In this BPO it would be common for a veteran to have to routinely access both campuses for their care. For example, Manhattan veterans with mental health needs who also have established relationships with medical or surgical specialists at Manhattan." • Despite the very large amount of vacated space at the Brooklyn campus, maintaining ambulatory services at Brooklyn would not allow for any re-use. This is due to the highly integrated Brooklyn campus, buffer requirements, and zoning regulations.

BPO	Pros	Cons	Rationale
BPO 5: Convert Manhattan Campus to Medical/Surgical, Convert Brooklyn Campus to Psychiatry/Behavioral Health	• More limited effect on affiliations and research programs as well as public transportation access compared to BPOs 2, 3, 8, or 9, which relocate more services than this BPO	• This BPO completely separates acute psychiatry from acute medical/surgical care. With the increasing rate of co-morbidities – patients who have both psychiatric and medical conditions – this separation runs counter to contemporary care models and would reduce quality of care. • May increase implementation risk related to veteran access to care via public transportation while maintaining overall drive time access to care • Potential implementation risk related to continuity of care • Affiliations and research programs may be negatively affected	• This BPO completely separates acute psychiatry from acute medical/surgical care. With the increasing rate of co-morbidities – patients who have both psychiatric and medical conditions – this separation runs counter to contemporary care models and would reduce quality of care.
BPO 8: New Consolidated Campus in Queens	• Improves adherence to modern, safe, and secure standards through all new construction compared to only renovations in the baseline • Gains significant operating cost efficiencies due to all new construction compared to only renovations in the baseline • Significantly higher re-use proceeds potential compared to the baseline since the entire Brooklyn campus and the entire Manhattan campus are made available for re-use • Overall, lower net present cost than the baseline due to significantly higher re-use potential and significant gains in operating cost efficiency	• May increase implementation risk related to veteran access to care via public transportation while maintaining overall drive time access to care • Potential to negatively impact Manhattan and Brooklyn Centers of Excellence, affiliations, research programs, and ability to recruit key clinical personnel • Higher risk of implementation than the baseline related to continuity of care, reputation, and local acceptance	• May increase implementation risk related to veteran access to care via public transportation while maintaining overall drive time access to care • Potential to decrease quality of medical services since Manhattan and Brooklyn Centers of Excellence, educational affiliations, research programs, and ability to recruit key clinical personal may be negatively affected • Higher risk of implementation than BPOs 5 and 6 related to quality, continuity of care, reputation, and local acceptance • May negatively affect collaboration with Department of Homeland Security

BPO	Pros	Cons	Rationale
BPO 10: Build Replacement Facilities at Existing Sites with CBOC Expansions	• Improves adherence to modern, safe, and secure standards due to all new construction compared to only renovations in the baseline • Gains operating cost efficiencies through all new construction along specialty service lines than through renovations in the baseline	• Disruptions to service may require contracting out services during construction • Potential implementation risk related to continuity of care • Affiliations and research programs may be negatively affected during complex phasing • Significant capital costs are required to construct two new campuses	• Disruptions to service may require contracting out services during construction (potentially 8-10 years) • Potential implementation risk related to continuity of care • Affiliations and research programs may be negatively affected during complex phasing • Significant capital costs are required to construct two new campuses

Appendix - Glossary

Acronyms

AFB	Air Force Base
AMB	Ambulatory
BPO	Business Plan Option
CAI	Capital Asset Inventory
CAP	College of American Pathologists
CARES	Capital Asset Realignment for Enhanced Services
CBOC	Community Based Outpatient Clinic
CIC	CARES Implementation Category
DoD	Department of Defense
FTEE	Full Time Employee Equivalent
GFI	Government Furnished Information
HEDIS	Health Plan Employer Data and Information Set
ICU	Intensive Care Unit
IP	Inpatient
JCAHO	Joint Commission on Accreditation of Healthcare Organizations
OP	Outpatient
MH	Mental Health
MOU	Memorandum of Understanding
N/A	Not Applicable
NFPA	National Fire Protection Association

PTSD	Post Traumatic Stress Disorder
SOW	Statement of Work
VA	Department of Veterans Affairs
VACO	VA Central Office
VAMC	Veterans Affairs Medical Center
VBA	Veterans Benefits Administration
VHA	Veterans Health Administration
VISN	Veterans Integrated Service Network

Definitions

Access	Access is the determination of the numbers of actual enrollees who are within defined travel time parameters for primary care, acute hospital care, and tertiary care after adjusting for differences in population and density and types of road.
Alternative Business Plan Options	Business Plan Options generated as alternatives to the baseline Business Plan Option providing other ways VA could meet the requirements of veterans at the Study Site.
Ambulatory Services	Services to veterans in a clinic setting that may or not be on the same station as a hospital, for example, a Cardiology Clinic. The grouping as defined by VA also includes several diagnostic and treatment services, such as Radiology.
Baseline Business Plan Option	The Business Plan Option for VA which does not change any element of the way service is provided in the study area. "Baseline" describes the current state projected out to 2013 and 2023 without any changes to facilities or programs or locations and assumes no new capital expenditure (greater than $1 million). Baseline state accounts for projected utilization changes, and assumes same or better quality, and necessary maintenance for a safe, secure, and modern healthcare environment.

Business Plan Option (BPO)	The options developed and assessed by Team PwC as part of the Stage I and Stage II Option Development Process. A business plan option consists of a credible healthcare plan describing the types of services, and where and how they can be provided and a related capital plan, and an associated reuse plan.
Capital Asset Inventory (CAI)	The CAI includes the location and planning information on owned buildings and land, leases, and agreements, such as enhanced-use leases, enhanced sharing agreements, outleases, donations, permits, licenses, inter- and intra-agency agreements, and ESPC (energy saving performance contracts) in the VHA capital inventory.
CARES Implementation Category (CIC)	One of 25 categories under which workload is aggregated in VA demand models. *(See Workload)*
Clinic Stop	A visit to a clinic or service rendered to a patient.
Clinical Inventory	The listing of clinical services offered at a given station.
Code	Compliance with auditing/reviewing bodies such as JCAHO, NFPA Life Safety Code or CAP.
Community Based Outpatient Clinic (CBOC)	An outpatient facility typically housing clinic services and associated testing. A CBOC is VA operated, contracted, or leased and is geographically distinct or separate from the parent medical facility.
Cost Effectiveness	A program is cost-effective if, on the basis of life-cycle cost analysis of competing alternatives, it is determined to have the lowest costs expressed in present value terms for a given amount of benefits.
Domiciliary	A VA facility that provides care on an ambulatory self-care basis for veterans disabled by age or disease who are not in need of acute hospitalization and who do not need the skilled nursing services provided in a nursing home.
Enhanced Use Lease	A lease of real property to non-government entities, under the control and/or jurisdiction of the Secretary of Veterans Affairs, in which monetary or "in-kind" consideration (i.e., the provision of goods, facilities, construction, or services of the benefit to the Department) is received. Unlike traditional federal leasing authorities in which generated proceeds must be deposited into a general treasury account, the enhanced-use leasing authority

	provides that all proceeds (less any costs than can be reimbursed) are returned to medical care appropriations.
Good Medical Continuity	A determination that veterans being cared for a given condition will have access to the appropriate array of primary, secondary, and tertiary care services required to treat that condition.
Initial Screening Criteria	A series of criteria used as the basis of the assessment of whether or not a particular Business Plan Option has the potential to meet or exceed the CARES objectives.
Inpatient Services	Services provided to veterans in the hospital or an inpatient unit, such as a Surgical Unit or Spinal Cord Injury Unit.
Market Area	Geographic areas or boundaries (by county or zip code) served by that Network's medical facilities. A Market Area is of a sufficient size and veteran population to benefit from coordinated planning and to support the full continuum of healthcare services. (*See Sector)*
Mental Health Indicators	See the end of this document.
Multispecialty Clinic	A VA medical facility providing a wide range of ambulatory services such as primary care, specialty care, and ancillary services usually located within a parent VA facility.
Nursing Home	The term "nursing home care" means the accommodation of convalescents or other persons who are not acutely ill and not in need of hospital care, but who require nursing care and related medical services, if such nursing care and medical services are prescribed by, or are performed under the general direction of, persons duly licensed to provide such care. Such term includes services furnished in skilled nursing care facilities, in intermediate care facilities, and in combined facilities. It does not include domiciliary care.
Primary Care	Healthcare provided by a medical professional with whom a patient has initial contact and by whom the patient may be referred to a specialist for further treatment. *(See Secondary Care and Tertiary Care)*
Re-use	An alternative use for underutilized or vacant facility space or VA owned land.

Risk	Any barrier to the success of a Business Planning Option's transition and implementation plan or uncertainty about the cost or impact of the plan.
Secondary care	Medical care provided by a specialist or facility upon referral by a primary care physician that requires more specialized knowledge, skill, or equipment than the primary care physician has. *(See Primary Care and Tertiary Care)*
Sector	Within each Market Area are a number of sectors. A sector is one or more contiguous counties. *(See Market Area)*
Stakeholder	A person or group who has a relationship with VA facility being examined or an interest in what VA decides about future activities at the facility.
Tertiary care	High specialized medical care usually over an extended period of time that involves advanced and complex procedures and treatments performed by medical specialists. *(See Primary Care and Secondary Care)*
Workload	The amount of CIC units by category determined for each market and facility by the Demand Forecast.

Mental Health Indicators

Indicator	Description
New Dx Dep - F/U X3 (mdd6n)	Percentage of patients with a new diagnosis of depression who have at least three clinical follow-up visits in the 12 acute periods after diagnosis (current PM)
New Dx Dep - Meds (mdd7n)	Percentage of patients with a new diagnosis of depression who have medication for at least 84 days in the acute treatment period (current PM)
Homeless Dchg Indep (fnct2n)	Percentage of veterans discharged from a domiciliary care for homeless veterans (DCHV), grand and per diem program, or healthcare for homeless veterans community-based contract residential care program to independent living
Screen for Alcohol (sa3)	Percentage of patients screened for high risk alcohol use with the AUDIT-C instrument (past and current PM)
Screen for MHICM (mhc1)	Percentage of psychiatry patients with high utilization of inpatient psychiatry services who are screened for mental health intensive care case management (past and current PM)
Screen for PTSD (ptsd1)	Percentage of all veterans screened for post traumatic stress disorder (PTSD) in the previous 12 months (SI)
SUD Cont of Care (sa5)	Percentage of patients entering specialty substance abuse treatment who maintain continuity of care for at least 90 days (past and current PM)